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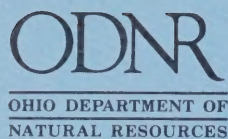
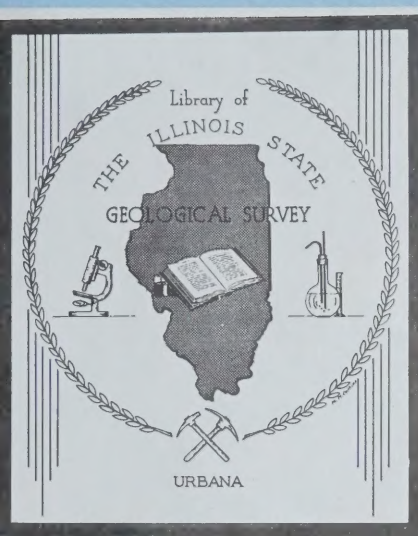
1985 REPORT ON OHIO MINERAL INDUSTRIES

WITH

DIRECTORIES OF REPORTING
COAL AND INDUSTRIAL MINERAL OPERATORS

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compiled by
Sherry L. Weisgarber

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FOREWORD

The 1985 *Report on Ohio mineral industries* includes some important changes from the 1984 report along with one major addition—the inclusion of a revised *Mineral industries map of Ohio*. The map shows the location of coal mines that reported production in 1985 and the locations of all industrial-mineral operations, unless they have been declared abandoned. We have assigned map location numbers to the individual mines by commodity. These map location numbers can be found in parentheses following the mine name in the alphabetical directories of coal-mine operators and industrial-mineral mine operators. A numerical index of map location numbers and mine operators is included with the map. Because the map includes the locations of all industrial-mineral mine operators, the alphabetical directory of industrial-mineral mine operators includes all operators, whether or not they had production or sales in 1985. However, the by-county commodity directories list only operations reporting sales or production. We plan to update this map annually and make it a permanent addition to the report.

The changes from the 1984 report affect four tables and one directory. This year table 8, *Washed Ohio coal*, has been revised to include more information and to make it easier to use. In table 9, *Dollar value of coal at mine*, we have distinguished between the dollar value of surface and of underground coal at mine. Also this year, the directory of reporting coal-washing plants and associated facilities includes the state mine numbers for each of the facilities. For the industrial mineral operators, table 16, *Value of Ohio industrial minerals*, now includes the tonnage sold of each commodity in 1985 along with the corresponding tonnage change in sales from 1984. In table 17, *Employment at Ohio industrial mineral operations*, we have distinguished between production employment and nonproduction employment by county and commodity.

All of these changes and the addition of the map were made to increase the usefulness of the report to the public. We continue to solicit comments on how this report can be made to better serve those interested in mineral products in Ohio.

Horace R. Collins
Division Chief and
State Geologist



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CONTENTS

	Page
Foreword	iii
Ohio Coal Development Office—advocate for Ohio coal, by David A. Berger	1
Availability of construction aggregate in Ohio, by Robert A. Wilkinson	4
Clay and shale in the economy of Ohio, by William U. Milliken and John C. Jensen	5
1985 Ohio mining activities in brief	6
Coal	9
Industrial minerals	18
Limestone and dolomite	20
Sand and gravel	23
Sandstone and conglomerate	27
Clay	29
Shale	30
Gypsum	32
Salt	32
Peat	33
1985 Ohio oil and gas activity	34
1985 Ohio alphabetical directory of reporting producing coal-mine operators	39
1985 Ohio directory of reporting coal-washing plants and associated facilities, by county	49
1985 Ohio directory of reporting producing coal-mine operators, by county	53
1985 Ohio alphabetical directory of industrial-mineral mine operators	65
1985 Ohio directory of limestone/dolomite mine operators reporting sales or production, by county	92
1985 Ohio directory of Lake Erie and Maumee River sand and gravel dredgers	96
1985 Ohio directory of sand and gravel mining operators reporting sales or production, by county	97
1985 Ohio directory of sandstone/conglomerate mine operators reporting sales or production, by county	106
1985 Ohio directory of clay-mine operators reporting sales or production, by county ...	107
1985 Ohio directory of shale-mine operators reporting sales or production, by county ..	108
1985 Ohio directory of gypsum-mine operators reporting sales or production	109
1985 Ohio directory of salt-mine and salt-brining-plant operators reporting sales or production, by county	109
1985 Ohio directory of peat-mine operators reporting sales or production, by county ...	109

FIGURES

1. Graph of value of coal, nonfuel minerals, and oil and gas in Ohio	6
2. Generalized map of the glacial deposits of Ohio	7
3. Generalized geologic map and cross section of Ohio	8
4. Map showing coal sales in Ohio in 1985, by county	9
5. Graph of sales and value of coal in Ohio	10
6. Map showing sales of limestone and dolomite in Ohio in 1985, by county	20
7. Graph of sales and value of limestone and dolomite in Ohio	22
8. Map showing sales of sand and gravel in Ohio in 1985, by county	23
9. Graph of sales and value of sand and gravel in Ohio	26
10. Map showing sales of sandstone and conglomerate in Ohio in 1985, by county	27
11. Graph of sales and value of sandstone and conglomerate in Ohio	34
12. Map showing clay sales in Ohio in 1985, by county	29
13. Graph of sales and value of clay in Ohio	30
14. Map showing shale sales in Ohio in 1985, by county	31
15. Graph of sales and value of shale in Ohio	31
16. Graph of sales and value of gypsum in Ohio	32
17. Graph of sales and value of salt in Ohio	33
18. Graph of sales and value of peat in Ohio	34
19. Map showing counties producing gypsum, salt, and peat in Ohio in 1985 and their ranking in sales	34
20. Graph of production of oil and gas in Ohio	35

CONTENTS

TABLES

	Page
1. 1985 Mineral sales and production in Ohio	6
2. 1985 Ohio coal production by production-size group and change from 1984	10
3. 1985 Ohio coal production by county and mining method	11
4. 1985 Ohio coal production by county and month	11
5. 1985 Ohio coal production by county and seam	12
6. 1985 Disposition of Ohio coal, by county	13
7. 1985 Rail shipments of Ohio coal, by county of origin and carrier	13
8. 1985 Washed Ohio coal	14
9. 1985 Dollar value of coal at mine, by county and mining method	14
10. 1985 Ohio coal-mine employment, by occupational group and month	15
11. 1985 Ohio coal-mine production employment, by county and month	15
12. 1985 Ohio coal-mine employment in central preparation plants, central shops, etc., by county and month	16
13. 1985 Ohio coal-mine employment in supervisory, technical, and clerical positions, by county and month	16
14. 1985 Ohio surface coal-mine reclamation employment, by county and month	17
15. 1985 Wage and salary payments to Ohio coal-mine employees, by county and occupa- tional group	17
16. 1985 Value of Ohio industrial minerals	18
17. 1985 Employment at Ohio industrial mineral operations, by county and commodity	18
18. 1985 Ohio limestone and dolomite sales, by county and type	21
19. 1985 Production of lime from Ohio stone, by county and type	22
20. 1985 Ohio sand sales, by county and type	24
21. 1985 Ohio gravel sales, by county and type	25
22. 1985 Ohio Lake Erie and Maumee River sand and gravel production	26
23. 1985 Ohio sales of crushed sandstone and conglomerate, by county and type	28
24. 1985 Ohio sales of dimension sandstone and conglomerate, by county and type	28
25. 1985 Ohio clay sales, by county and type	29
26. 1985 Ohio shale sales, by county and type	31
27. 1985 Ohio summary of new oil and gas well drilling by county	36
28. 1985 Ohio summary of new oil and gas well drilling by producing zone	37
29. Ohio new well completions, 1975-1985	37
30. Ohio crude oil and gas production and reserves, 1975-1985	38
31. Ohio counties and their Division of Mines abbreviations	38

OHIO COAL DEVELOPMENT OFFICE—ADVOCATE FOR OHIO COAL

by David A. Berger, Director
Ohio Coal Development Office
Ohio Department of Development

The Ohio Coal Development Office spearheads the State of Ohio's strong commitment to revitalization of the state's coal industry. Once counted among the nation's premier coal-producing states, Ohio has seen its coal production fall dramatically over the past 15 years, while the nation's reliance on coal has increased. From a record 55 million tons of coal produced in 1970, Ohio coal production fell to a modern low of 33 million tons in 1983. Expanding the market for Ohio coal is the goal which guides the Coal Development Office.

A shrinking market for high-sulfur coal is the principal reason for the decline in Ohio coal production. The sulfur content of Ohio coal, which averages 3.5 percent sulfur by weight, is too high to meet increasingly more stringent air-quality emission limits without costly sulfur-removal equipment. Consequently, other states with reserves of lower sulfur coal are capturing markets once held by Ohio producers, both here in Ohio and in neighboring states. The key to regaining lost markets and expanding overall demand for Ohio coal lies in new technologies that permit both clean and inexpensive use of Ohio coal. Developing and hastening the adoption of these technologies is the chief mission of the Ohio Coal Development Office.

ECONOMIC IMPORTANCE OF COAL TO OHIO

In 1984, Ohio's coal-production industry tallied \$1.3 billion in sales and employed more than 10,000 Ohioans. Yet, these numbers understate coal's true economic significance to Ohio. Most importantly, coal has for years assured Ohio of reliable and affordable electrical energy, making Ohio firms competitive and the state attractive for economic development. Over the next 20 years more than 90 percent of Ohio's electrical generation will continue to be coal based.

Ohio is the largest coal-consuming state in the nation, as measured on a Btu-used basis. In 1984, in excess of 60 million tons of coal was consumed in Ohio. However, only slightly more than half of this annual requirement was met by Ohio-produced coal. The lost economic value of purchases of out-of-state coal exceeds \$1 billion and thousands of Ohio mining jobs. Accordingly, a major priority of the Ohio Coal Development Office is insuring that Ohio coal commands a larger share of our own state's annual coal demand. Each million tons of Ohio coal production creates:

- 400 direct mining jobs;
- \$14 million in salaries and wages;
- \$500,000 in state tax revenue;
- \$12.5 million reduction in unemployment and associated costs to the state;
- \$4 million savings to electric utilities (based on the difference in average delivered cost between Ohio coal and out-of-state coal).

Coal has and will continue to be an economic mainstay of eastern and southeastern Ohio. Twenty-four of Ohio's 88 counties produce coal. In many of these counties, coal

mining is the principal employer and source of local tax receipts. Unfortunately, sustained low levels of coal production in many of the counties have meant chronic unemployment and reduced local revenues necessary for basic services. Revitalizing existing production capabilities in these counties is critically important to their economic welfare.

\$100-MILLION INITIATIVE FOR COAL RESEARCH AND DEVELOPMENT

Legislation creating the Coal Development Office within the Ohio Department of Development was signed by Governor Richard F. Celeste in June 1984. This initiative followed months of hearings in the Ohio General Assembly probing the condition of Ohio's coal-production industry and strategies necessary to aid in its recovery. Among the responsibilities assigned to the Office in this legislation were:

- to promote and support coal research and development facilities and technologies for the more efficient production, beneficiation, marketing, and use of Ohio coal;
- to promote market acceptance and increased use of Ohio coal through technology and market development;
- to assist in financing coal-development facilities;
- to support use of Ohio coal in state-owned facilities and electric utilities;
- to improve environmental quality through cleaner use of Ohio coal.

The activities and programs of the Coal Development Office are guided by a 12-member Technical Advisory Committee. Members include representatives from the Ohio Public Utilities Commission, coal-production companies, the United Mine Workers of America, electric utilities, manufacturers who use coal, environmental groups, coal research and development interests, the Ohio General Assembly, the Ohio Department of Development, and the Ohio Environmental Protection Agency.

Two principal responsibilities of the Technical Advisory Committee are to assist the Office in the preparation of an annual Coal Development Agenda and to advise the Office in the selection of worthwhile coal research and development projects. The annual Coal Development Agenda is mandated by legislation, and is released in January of each year. This document includes a comprehensive statement of constraints on Ohio coal and opportunities for its greater use and the Office's priorities and programs. Applying the guidelines and criteria set forth in the Agenda, the Technical Advisory Committee evaluates and makes recommendations regarding the award of financial assistance to coal research and development facilities and projects. To date, over 16 separate projects have received a pledge of \$7.5 million in state funds. In turn, these projects include investments of over \$24 million in private and other public commitments.

The Ohio Coal Development Office pursues two avenues for supporting utilization and new market development for Ohio coal. First, the Office provides grant and loan support to coal research and development projects initiated by private and/or public entities. Second, the Office serves as an advocate for Ohio coal use by encouraging new coal-use boiler installations, providing coal marketing and information services, and intervening in regulatory proceedings.

Current funding for coal research and development activities totals \$7.1 million, which was appropriated to the Office in the State of Ohio Biennium Budget which runs to June 30, 1987. In November 1985, the Ohio electorate approved a constitutional amendment authorizing the issuance of \$100 million in bonds for further coal research and development. Legislation to implement this authority is currently under consideration by the Ohio General Assembly.

The authority to administer these bond proceeds will reside in the Coal Development Office. Hence, the Office will receive substantially increased financial resources that will engender larger scale projects and an expanded range of coal research and development initiatives.

COAL TECHNOLOGIES

Two general types of coal technologies are of interest to the Ohio Coal Development Office. The first and most important category is *clean-coal technologies* that offer significant potential for environmentally sound and cost-effective use of Ohio coal in existing and new boilers. The second category is *coal-conversion technologies*, which involve the conversion of coal to clean gas or liquid fuel and potentially open new markets for Ohio coal use. Both types of technologies have great significance to the future of Ohio coal; the former is of immediate importance, while the latter is anticipated to be of increasing significance in the 1990's and into the 21st century.

Ohio's interest in developing these new technologies is predicated on the reality that existing commercially available technology is either economically efficient or technologically efficient, but unfortunately not both. For example, coal-washing facilities are efficient in cost, adding only \$6-\$10 per ton of coal processed. Yet, only 20 to 30 percent of total sulfur can be removed by these processes. Conversely, flue-gas desulfurization systems are highly efficient technologically, removing in excess of 90 percent of the sulfur; however, they are exceedingly costly to install and operate. It is not uncommon for the total cost of these systems to equal the cost of the coal itself when measured on a cost per ton of coal burned basis.

The challenge is to make quickly available commercially those processes that are both technologically and cost efficient. However, the likelihood of meeting these criteria through a single technology, applicable to both existing and new coal-utilization facilities, is extremely remote. For this reason, the Coal Development Office will support an array of the most promising technologies applicable before, during, and after combustion of coal. General discussion and examples of sponsored projects in each of these areas follows.

Clean-coal technologies

Before combustion

Pre-combustion technologies involve the processing of raw coal, usually at or near the mine, to remove sulfur and other impurities. Physical coal-cleaning processes use spe-

cific gravity and surface-property characteristics to separate impurities from the coal. The theoretical limit of sulfur-removal potential, however, is set by the inorganic (pyrite & sulfate) sulfur content of the coal, which is generally 50 percent of the total sulfur content. Chemical processing is required to remove sulfur compounds that are organically bound. The chief drawback to these processes is the significant cost added to the coal, ranging from \$20 to \$45 per ton of processed coal. Coal cleaning also reduces the ash content of coal; the reduced ash content lowers transportation costs on a ton/Btu basis, improves plant reliability, and reduces on-site waste disposal to the user.

Examples of pre-combustion projects supported by the Coal Development Office are described below.

Column flotation.—Under two separate but interrelated projects, the Office is supporting bench-scale tests of specific gravity separation of the fines-size (-28 mesh) coal fraction in column-flotation cells. Preliminary results suggest that the improved sulfur reduction and higher Btu recovery obtained exceed the performance of froth-flotation methods currently in use. Rapid scale-up to commercial application is anticipated.

Electrostatic cleaning.—This novel technology was installed at the Columbus & Southern Ohio Electric Company's Picway Station for pilot-scale runs. Electrostatic separation is based on differences in electrical conductivity between the organic and inorganic (pyritic sulfur and ash) particles. Using dry pulverized coal without water, chemicals, or other additives, the coal feed passes beneath a high-voltage corona field that imparts a charge to inorganic particles, which in turn are liberated from the coal via an attracting electrode.

Six Ohio run-of-mine coals were tested on this 85-ton-per-hour system. Two coals, the Lower Kittanning and the Middle Kittanning, yielded 40 to 50 percent total sulfur reduction and 30 percent ash reduction. Performance on other coals was comparable to conventional cleaning, although the total estimated cost of this process is at least 1/3 less than conventional cleaning.

Chemical cleaning.—Bench-scale runs on the Nagat process, which removes some of the organic sulfur while retaining volatiles, also have been supported by the Coal Development Office. Washed coal is fed into a reactor and subjected to a mild caustic mixture under pressures of 80-250 psi at a temperature range of 390°-440°C. These conditions are sufficient to allow the organic sulfur compounds to decompose to hydrogen sulfide without driving the volatiles out of the coal.

Six Ohio coals were tested on the Nagat process following sink-float removal of ash and pyritic sulfur. Total sulfur reduction ranged from 20 percent to 60 percent. A subsequent economic analysis was conducted on Meigs Creek coal to ascertain the cost of a 10,000-ton/day processing plant. Results suggest that Meigs Creek coal, at 5.18 percent sulfur by weight, could be cleaned to 0.8 percent sulfur with 89-94 percent Btu recovery for \$15-\$30 per ton of feed coal. At the higher cost, such an installation would be competitive with the total cost of flue-gas desulfurization as installed and operated on an existing power plant.

During combustion

Options for removing sulfur during combustion are limited to a small number of technologies. These include fluidized-bed combustion and the introduction of sulfur sorbents in the combustion zone. Sorbent material and lower combustion temperatures are required to promote

optimal sulfur capture and NO_x reductions.

Fluidized-bed combustion (FBC).—In FBC technology, coal and a sorbent (limestone or lime) are introduced into the combustion chamber (furnace) in a bed of solids. The bed is suspended through the action of fluidizing combustion air distributed from below. Fluidization promotes a turbulent mixing condition required for good combustion efficiency and the capture of sulfur dioxide (SO₂) by the limestone particles. The resulting superior mixing characteristics allow the generation of heat at a substantially lower and more evenly distributed temperature of 800° to 850°C. The lower temperature is below that required for the formation of thermal nitrogen oxides (NO_x).

Sorbent injection.—Sorbent injection in conventional pulverized-coal units is another means for reducing sulfur during combustion. Finely ground lime or limestone is introduced into the boiler at strategic locations to capture sulfur. High combustion temperatures and velocities retard optimal sulfur/limestone reactions, but sulfur reduction of 50 percent or greater is possible.

Lime-injection multistage burner (LIMB).—Through a contract with Babcock & Wilcox of Alliance, Ohio, the Coal Development Office, the U.S. EPA, and Ohio Edison are sponsoring a LIMB demonstration at Ohio Edison's Edgewater Unit 4 at Lorain, Ohio. The project will modify this unit to include installation of low NO_x burners, staged combustion zones, and lime injection in the upper combustion zones. Boiler modifications will begin in the fall of 1986. The primary goal of this project is to demonstrate sustained sulfur and nitrogen oxide reductions of 50 percent or greater through a comparatively low-cost system adaptable to existing utility boilers.

After combustion

Technologies in this category involve treatment or "scrubbing" of the flue gas to capture sulfur. There are two basic systems: wet flue-gas desulfurization and dry flue-gas desulfurization.

Wet flue-gas treatment.—Wet flue-gas-desulfurization systems, which spray a lime/water slurry through the flue gas to achieve 90 percent sulfur capture, are commercially available and in operation at well over 100 utility sites. However, the extremely high cost of these systems and the large volumes of waste material they generate have prompted a search for more efficient alternatives. These investigations include the development of more efficient reagents (dry and wet), regenerable product systems, and low-cost sorbent-injection systems utilizing existing particulate-capture equipment.

Advanced dry-flue-gas treatment.—Under U.S. Department of Energy sponsorship, three projects utilizing Ohio coals in low-cost, medium-efficiency dry-flue-gas-desulfurization tests have been initiated. All three projects involve the injection of lime sorbents into the flue-gas ductwork to remove up to 50 percent of the sulfur dioxide. The projects are underway at the J. H. Campbell station (Consumers Power and Bechtel Corp., using Sunnyhill Mine coal), the Toronto station (Ohio Edison and Dravo Corp.), and the Muskingum station (American Electric Power and General Electric).

Coal-conversion technologies

Clean liquid and gaseous coal fuels are anticipated to substantially broaden the uses for Ohio coal, and hence increase demand, in the future. Technologies capable of converting coal to liquid or gaseous form include coal gasification, coal/water slurry fuels, co-processing with other hydrocarbon stocks, and coal-to-methanol refining. These technologies are in various stages of development and some are commercially available today. Stable to declining prices for primary petroleum and natural gas fuels have thwarted further development and delayed their application.

Examples of coal-conversion projects cosponsored by the Ohio Coal Development Office are described below.

Coal gasification.—The Batelle treated coal (BTC) process, which impregnates coal with lime prior to gasification, was applied to the Middle Kittanning coal. Over 7 tons of Middle Kittanning coal was processed and gasified in a pilot-scale Wellman-Galusha fixed-bed gasifier. Significant improvements in performance over untreated coal were obtained, including (1) increased gasification reactivity, which allows for greater throughput and use of smaller scale gasifiers; (2) no heavy tar formation and up to 90 percent reduction in condensed hydrocarbon, which eliminates the need for expensive tar-removal processes; and (3) in-situ sulfur capture in coal ash with 70 to 90 percent total sulfur reduction.

Although it demonstrates technological efficiency, the BTC process is not yet economically efficient. With run-of-mine coal at \$20 per ton, the BTC product approaches \$45 per ton.

Co-processing.—In a Coal Development Office co-processing project, three Ohio coals were tested for liquefaction potential. Co-processing technology involves the mixture of a bitumen (asphaltic residue) and coal reacted under heat, pressure, and hydrogen to produce light-crude-oil feedstocks. In this process, sulfur acts as a catalyst, not as an undesirable element, to hasten liquefaction. High liquid yields are necessary to consider coal as a co-processing ingredient.

The three Ohio coals tested at the Kerr-McGee laboratories yielded 94 to 96 percent conversion efficiencies. These yields surpass those obtained on any other coals tested to date. Encouraging results subsequently have prompted pilot-scale co-processing tests preliminary to installation of a commercial operation in a Great Lakes refinery that would require 220,000 tons of Ohio coal per year.

CONCLUSION

There is a brighter future for Ohio coal. It is a future characterized by new clean-coal and coal-conversion technologies. These technologies offer the promise of future markets for Ohio coal in more efficient, clean, reliable coal-use facilities. Technology demonstrations already underway by the Ohio Coal Development Office will pave the way toward this future. Our success will mean a thriving Ohio coal-mining economy, jobs created in the manufacture of coal technologies, and reliable and affordable electricity for Ohioans for many decades.

AVAILABILITY OF CONSTRUCTION AGGREGATE IN OHIO

by Robert A. Wilkinson, P.E., Managing Director
Ohio Aggregates Association, Columbus, Ohio

The demand for construction aggregate is closely related to population. Where there are people there are roads and streets, housing, commercial development, industrial development, and an infrastructure in constant need of maintenance, rehabilitation, and replacement. All of these require aggregate. Major highway projects and industrial developments in rural areas also call for large volumes of aggregate.

Ohio is fortunate to have good quality aggregate available in every section of the state. Traditionally, construction aggregate has been used within 40 miles of where it was produced. With an average FOB price of about \$4.00 per ton, haul or transportation cost placed a limit on how far from home a producer could be competitive.

We are now beginning to see some changes in the availability and supply of aggregate. These changes are the result of a number of factors—such as depletion of deposits, urban sprawl, zoning, favorable rail rates, back hauling, and greater use of water transportation. In addition, the aggregate industry in Ohio is presently operating at about 75 percent of capacity, which leads to very competitive prices in some areas.

A look at the eight major metropolitan areas in Ohio illustrates some of the changes occurring today in the Ohio aggregate industry.

Toledo is limestone country, as is most of northwestern Ohio. There is a trend towards the use of more stone sand in the area as deposits of natural sand are worked out or depleted. The Toledo market is one of those areas where the current aggregate-producing capacity far exceeds the demand, and pricing is very competitive.

As a result of urban sprawl, zoning restrictions, and depletion of local deposits, Cleveland now imports most of the aggregate it uses. With cutbacks in steel production, there is also a reduction in the amount of blast-furnace slag¹ locally available. Sand and gravel come into the area from the east and south. Limestone is trucked in from Erie and Huron Counties. Limestone is shipped in by barge and ore carrier from Ottawa County, Michigan, and Canada. Limestone transported on Lake Erie is also delivered to ports at Fairport Harbor and eastward to Conneaut. A small amount of sand still comes from dredging in the lake.

Youngstown has relied heavily on blast-furnace slag over the years, plus one major limestone source south of the city. With the shutdown of many of the furnaces in the area, limestone is playing a larger part in the supply picture. Limestone now comes in by rail to Lordstown, as well as coming south by truck from ports at Ashtabula and Conneaut. Where it is available, steel-furnace slag¹ continues to be used in Youngstown and other northeastern Ohio areas.

Akron is served by a number of sand and gravel producers in the immediate area. Limestone comes in by rail from the west as well as by truck from the northwest. Some of the trucking is a back haul for those carrying coal and grain to the Lake Erie ports. No overall change is seen in the aggregate availability in Akron.

Canton has good local gravel sources. The fast growth in the area north of the city is leading to zoning problems and

some good deposits may go undeveloped. Gravel will continue to be the main aggregate source, but haul distances will increase over the years as producers have to work deposits farther from the city.

Columbus has a number of good aggregate sources, several of which are within the city limits. Limestone from Marble Cliff and several quarries in southern Delaware and Union Counties serve the north end of the city, plus the growth areas of Dublin and Westerville. Sand and gravel are produced at various locations in southern Franklin County. Limestone underlies the gravel deposits in the Frank Road area and will probably see more use in the years to come. Whereas Columbus is probably the best growth market for aggregate in the state, it is also the most competitive.

Dayton sits on top of some very good gravel. Some limestone also exists in the area, as is evident by one active quarry west of the city and an operation at Fairborn. Zoning and urban sprawl will force aggregate producers to develop more rural deposits, but gravel should continue to be the main source of construction aggregate in the Dayton area.

For years Cincinnati has been a gravel market. The area west of the city has numerous gravel operations, and most of the better deposits are being worked. A high clay content may discourage development of some remaining deposits in the area. The gravel deposits to the east of Cincinnati are in the way of the urban growth headed that way, and opening of new deposits may be limited. In the past few years, limestone-aggregate base has been trucked in from Clinton and Highland Counties, with natural sand being a back haul. This trend will probably increase, as the local gravel deposits are better suited for concrete and asphalt-paving materials than they are for use as base. Barge traffic on the Ohio River makes the Cincinnati market available to gravel sources in Indiana as well as limestone from northern Kentucky.

Good construction aggregate will continue to be available throughout Ohio. Traditionally used materials, such as natural sand and blast-furnace slag, are not going to be as readily available in some areas as they have been in the past. Increased use of steel-furnace slag will be seen in northeast Ohio. Limestone will find more widespread use throughout the state.

More and more, the delivered price of the material is going to be controlled by the cost of transportation, not the cost of producing the aggregate. The net result will be a gradual increase in the overall cost of aggregate. Also, the cost of transportation, whether by truck, rail, or water, is going to be a major factor in determining the type of construction aggregate available in the various metropolitan areas. The quality will be there, but the buyer may be using aggregate from somewhere other than the traditional sources.

¹Blast-furnace slag is formed in the production of iron. Steel-furnace slag is formed in the process of converting iron to steel. Steel-furnace slag is heavier than blast-furnace slag and will expand when exposed to outside elements. Steel-furnace slag can be used in the aggregate industry as long as it is crushed to size, then stockpiled and aged.

CLAY AND SHALE IN THE ECONOMY OF OHIO

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Clay and shale are economically important minerals to Ohio. Glacial clay, underclay, and/or shale was mined in 23 counties in 1984. Franklin, Tuscarawas, and Stark Counties were the leaders in terms of tonnage sold. The value of the raw materials sold totalled slightly over \$8,000,000, with an average price per ton of \$2.46. However, as addressed later in this article, the raw value does not reflect the true value of clay and shale in Ohio's economy.

Although clay and shale are found throughout Ohio, the eastern half of the state is by far the most important production area. Of a total of 59 operations reporting production of clay and/or shale in 1984, 48 operations reported production from the Pennsylvanian-age rocks in eastern Ohio. The most economically important fire clays in Ohio generally underlie Pennsylvanian-age coal beds.

Fire clays, common clays, and shales are the raw materials used in the ceramics and structural clay products industries. Fire clays are used rather extensively in the manufacture of commercial refractory products because fire clays generally contain low percentages of iron oxide, lime, magnesia, and alkalis; this relative purity enables the material to withstand temperatures of 2700°F (1500°C) or higher. Common clay and shale are used in the manufacture of structural clay products such as face brick and tile, and as a source of alumina and silica for portland cement. Common clay is a clay or clay-like material that is sufficiently plastic to permit ready molding and which vitrifies below 2000°F (1100°C). Shale is a sedimentary rock composed chiefly of clay minerals that have been both laminated and indurated while buried under other sediments. Recently, large volumes of shale have been mined for cover in landfills.

Much planning and coordination is required for the efficient management of some clay and shale mines. A number of seams of clay and shale may occur on a single or adjacent mining property. The firing characteristics of each individual seam may differ considerably depending on the specific material and its geologic history. Characteristics of the brick product known as fired shrinkage, carbon burn-out, and forming plasticity are intimately tied to the mineralogy and chemistry of the raw material and commonly change during the mining process. Such changes are related to the relative amount of natural weathering of the raw material. Thus, the manufacturer must continually adjust the raw-material blend to avoid significant changes in the fired product. Blends may include mixing two or more seams of clay or shale or mixing clay and shale. Whatever the blend, it is of utmost importance to the manufacturing process that the unique combination that provides the desired product line be found and maintained.

Shale is the most widely used of the two resources, accounting for sales of over 2.4 million tons of raw material in 1984. Sales of raw clay in 1984 totalled slightly under 900,000 tons. Large volumes of raw shale are vital to the

production of face brick. The value to society and to the economy of the state far exceeds the value of the shale itself. The following calculations demonstrate the true economic value of 1 acre of shale, 24 feet thick, when it is used as the sole raw material in brick manufacturing. In this example, the shale is ground to approximately 10 mesh after mining, mixed with water for forming purposes, air dried, and fired to approximately 1900°F (1050°C). This process produces a strong, handsome brick suitable for building purposes.

1 acre of shale 24 feet thick	= 50,000 tons of shale
50,000 tons of shale at	
\$3.00/ton	= \$150,000 worth of raw shale
50,000 tons of shale	= 16,000,000 face bricks
16,000,000 face bricks at	
\$130/per 1000	= \$2,080,000 worth of product

As can readily be seen, the product value of \$2,080,000 far exceeds the \$150,000 figure normally applied as the value of 1 acre of raw shale. In reality, the raw shale is almost worthless in its natural state. The clay and shale industry, however, creates a valuable commodity through the process of manufacturing bricks or some other product. The value of these bricks to society becomes even more apparent when it is realized that an average brick house uses approximately 12,300 bricks; thus, approximately 1,300 houses can be built with 16,000,000 bricks. To manufacture, transport, and use these 16,000,000 bricks, over 170 laborers, truck drivers, bricklayers, and other employees will be involved. The Columbus market area currently uses 35 to 50 million bricks a year. At this consumption rate, 370 to 530 people would be employed annually in the manufacture, marketing, transportation, and utilization of these bricks just in Columbus alone. Many other subsidiary benefits also accrue in Ohio through the making of portland cement, which is used as brick mortar; in the production of natural gas and coal used to fire the kilns; and in the production of electricity from native coals which is used in the manufacturing process.

The newest brick plant in Ohio was built in 1981 at a cost in excess of \$12,000,000. This facility can produce 40,000,000 bricks a year. Using the same assumptions cited in the example above, this one plant will produce over \$5,000,000 worth of bricks a year and provide employment to over 400 Ohioans.

Although the fortunes of the clay and shale industry have receded greatly since its peak in the late 1950's, when Ohio led the nation in fire clay production and in the total production of common clay and shale, it is still an industry of importance in Ohio, providing vitally needed products and employment to its citizens. Bricks and other ceramic products from home, rather than imported products, contribute to a healthy Ohio economy.

1985 OHIO MINING ACTIVITIES IN BRIEF

Reports were filed in 1985 for 411 coal-mining operations, of which 299 reported coal production. Reports also were filed for 51 separate coal-washing plants and associated facilities. Of 565 industrial-mineral-mining operations filing reports in 1985, 445 operations reported production. There were 12 mines reporting production of coal and one or more industrial minerals and 25 mines reporting production of multiple industrial minerals (including those mines producing coal and multiple industrial minerals). There were 6,228 new wells drilled for oil and gas in 1985, of which 5,873 were productive and 355 were dry.

The total value² of coal was \$1,144,225,264 in 1985; the value of oil and gas was \$930,368,661; and the total value² of all industrial minerals was \$290,066,058 in 1985.

TABLE 1.—1985 Mineral sales and production in Ohio

Commodity	Production ¹	Sales ²
Coal	35,465,374 tons	35,392,529 tons
Limestone and dolomite	30,447,231 tons	37,013,024 tons
Sand and gravel	13,632,267 tons	27,298,305 tons
Salt	4,215,755 tons	4,339,571 tons
Sandstone and conglomerate	1,273,697 tons	2,073,784 tons
Clay	775,436 tons	968,547 tons
Shale	1,035,288 tons	1,328,580 tons
Gypsum	247,963 tons	247,963 tons
Peat	17,807 tons	29,584 tons
Gas	182,244,648 MCF ³	⁴
Oil	14,987,592 barrels	⁴

¹Production as reported. Many operators do not know actual production figures and report only sales.

²Includes material for captive use.

³Thousand cubic feet.

⁴Figure not available.

²Includes reported and estimated values. Some operations reporting production did not report a value for that production. A statewide average price per ton was calculated for each commodity based on production for which the value was reported. This calculated average was used to estimate the value of production for which the actual value was not reported.



FIGURE 1.—Value of coal, nonfuel minerals, and oil and gas in Ohio.



FIGURE 2.—Generalized map of the glacial deposits of Ohio. Continental glaciers advanced over the Ohio landscape several times during the Ice Age. These glaciers deposited unconsolidated materials on top of the bedrock over nearly two-thirds of the state. Most of Ohio's sand and gravel production comes from kames, eskers, and outwash, which were deposited by meltwater from the glaciers. Other glacially derived industrial minerals in Ohio include peat and clay.

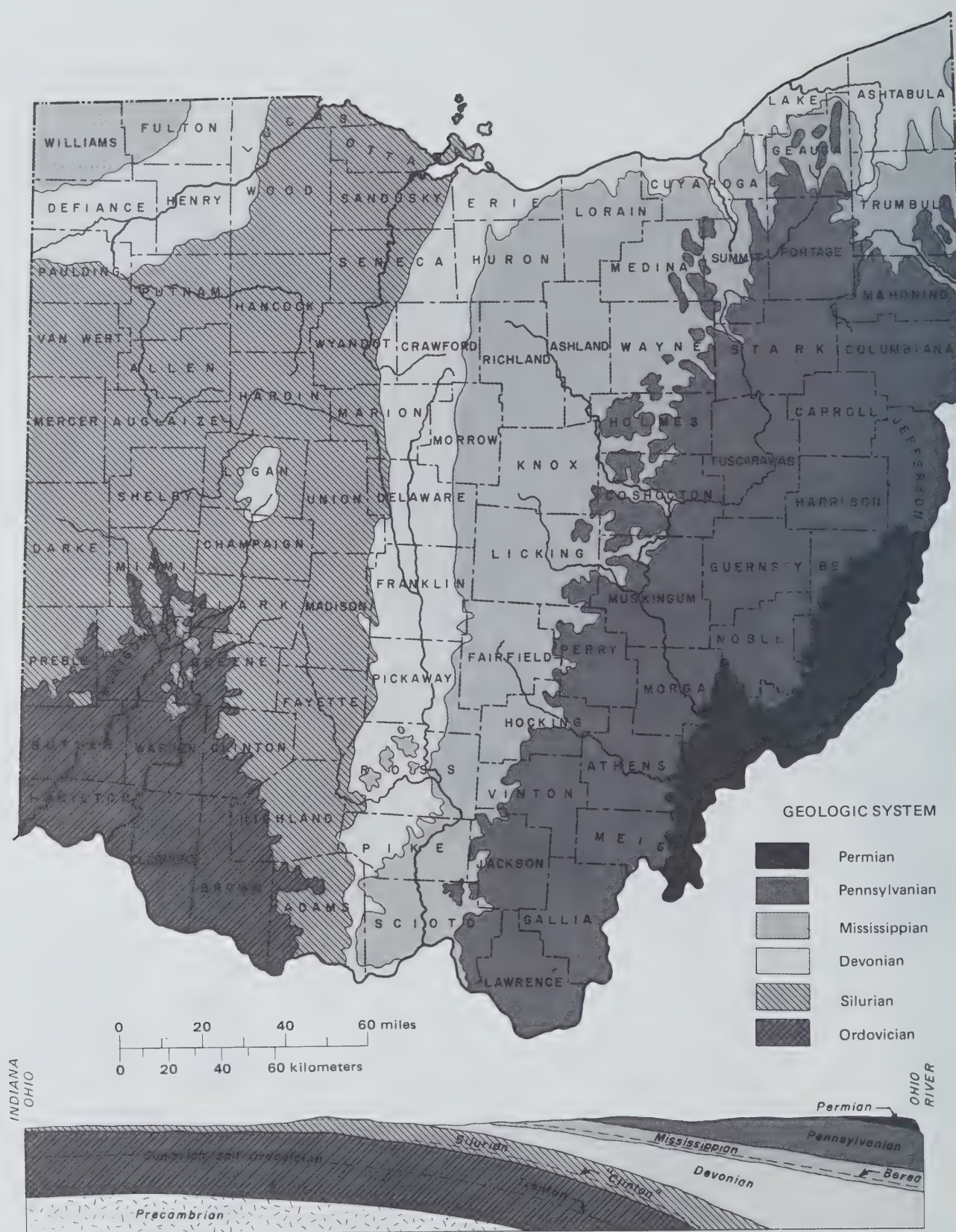


FIGURE 3.—Generalized geologic map and cross section of Ohio. Mineral production occurs throughout Ohio and from every geologic system from the Cambrian to the Permian. Coal, limestone and dolomite, sandstone and conglomerate, shale, clay, gypsum, salt, and oil and gas are produced from Ohio bedrock.

COAL

Coal was produced at 299 mines in 24 Ohio counties during 1985. Production decreased 8.7 percent from 1984, totalling 35,465,374 tons in 1985, with 21,805,361 tons produced at 285 surface mines, and 13,660,013 tons produced at 14 underground mines. In comparison to 1984, there were 12 more mines reporting production of 50,000 tons or less, 5 fewer mines producing between 50,000 and 500,000 tons, 1 more mine producing between 500,000 and 1,000,000 tons, and 1 fewer mine reporting production of 1,000,000 tons or greater; there was a net increase of 7 mines in 1985.

The five leading counties for 1985 production were Belmont, Meigs, Noble, Monroe, and Harrison Counties; these counties produced 54.3 percent of the 1985 total production. A total of 35,392,529 tons of coal were sold in 1985, with a total value³ of \$1,144,225,264. The average price per ton of all coal sold was \$32.33; surface-mined coal averaged \$28.03 per ton and underground-mined coal averaged \$38.97.

In underground mining, 63.4 percent of the coal was mined by continuous miner and 36.6 percent was produced by longwall mining; no coal was produced by conventional mining in 1985. In surface operations, 4.7 percent of the coal produced was auger mined, and the remainder was

strip mined.

The Pittsburgh (No. 8) coal was the most heavily mined seam, followed by the Meigs Creek (No. 9), Middle Kittanning (No. 6), Clarion (No. 4A), and Lower Kittanning (No. 5) seams. Coal produced from these five seams made up 80.4 percent of the total 1985 production.

A total of 25,713,839 tons of coal was reported as washed in 1985. Reports from 26 coal-washing plants indicate a 30.0 percent loss in washing.

Trucking was the primary means of coal disposition, carrying 39.8 percent of the total sales. Rail transported 14.8 percent, conveyor belts carried 27.4 percent, and water transport carried 18.0 percent of the coal sold in 1985; less than 0.1 percent was handled by other undesignated means. A total of 1.1 percent of the coal produced was reported as stored.

The total average annual employment reported was 9,052 employees, 5,710 of whom were production employees. The average annual wage earned by production employees was \$30,860, based on those employees for whom wages were reported. Wages earned by all employees totalled \$293,450,861 in 1985.

³Includes reported and estimated values. See footnote 2, p. 6.

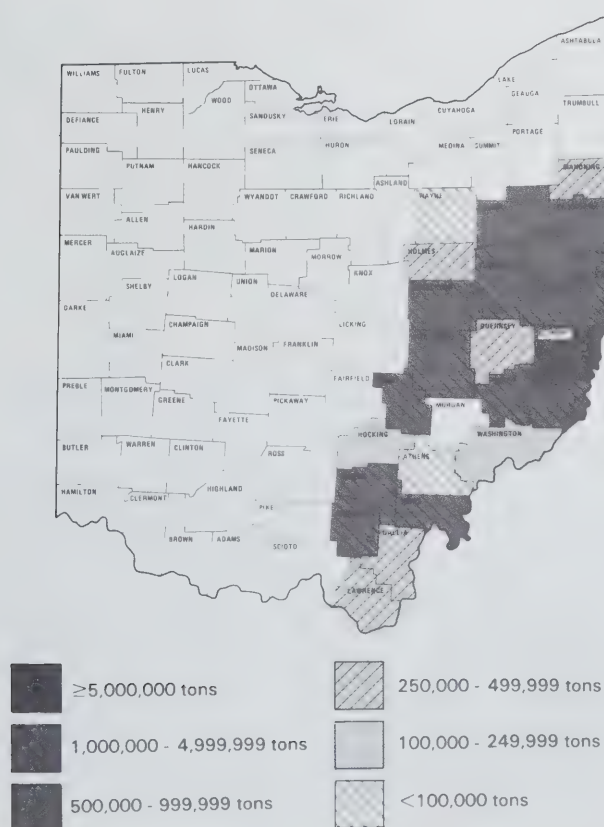


FIGURE 4.—Coal sales in Ohio in 1985, by county.

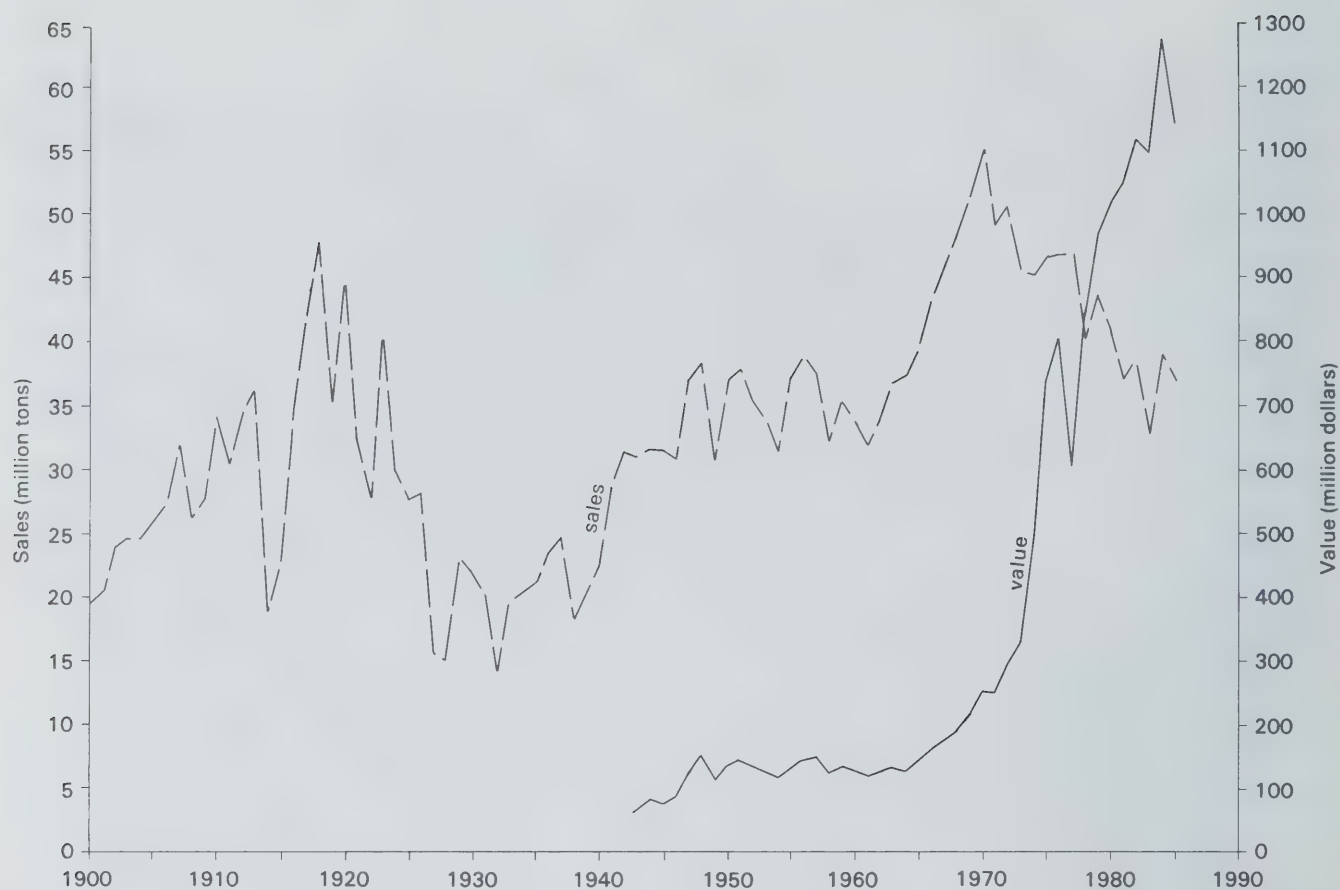


FIGURE 5.—Sales and value of coal in Ohio.

TABLE 2.—1985 Ohio coal production by production-size group and change from 1984

Production-size group	1985		Change from 1984 (short tons)
	Number of mines reporting	Production (short tons)	
Under 25,000 tons	125	1,382,214	+164,461
25,000 to 49,999 tons	52	1,869,952	-163,751
50,000 to 99,999 tons	59	4,226,363	+788,548
100,000 to 249,999 tons	40	6,110,885	-1,363,046
250,000 to 499,999 tons	8	2,606,798	-1,938,970
500,000 to 999,999 tons	9	6,362,692	+132,264
1,000,000 tons and over	6	12,906,470	-978,134
TOTAL	299	35,465,374	-3,358,628

TABLE 3.—1985 Ohio coal production by county and mining method

County ¹	All methods (short tons)	Underground					Surface			
		Number of mines reporting	Production (short tons)				Number of mines reporting	Production (short tons)		
			Total	Longwall	Conventional	Continuous miner		Total	Strip	Auger
Athens	12,102						2	12,102		
Belmont	5,576,562	2 ²	1,541,794	17,703		1,524,091	55 ²	4,034,768	3,846,470	188,298
Carroll	707,371						13	707,371	680,379	26,992
Columbiana	615,515	1	6,633			6,633	32	608,882	575,071	33,811
Coshocton	1,383,651						17	1,383,651	1,360,499	23,152
Gallia	430,624	1	40,023			40,023	3	390,601	390,601	
Guernsey	444,708						6	444,708	387,697	57,011
Harrison	3,111,377	3	2,015,840	993,833		1,022,007	17	1,095,537	1,024,331	71,206
Hocking	214,393						4	214,393	214,393	
Holmes	327,133						5 ²	327,133	327,133	
Jackson	1,175,310	1	146,809			146,809	12	1,028,501	1,028,501	
Jefferson	1,933,602						24	1,933,602	1,922,082	11,520
Lawrence	374,984						2 ²	374,984	374,984	
Mahoning	284,156						8	284,156	257,475	26,681
Meigs	4,015,480	2	4,010,731	1,857,342		2,153,389	1	4,749	4,749	
Monroe	3,194,227	1	3,194,227	2,133,438		1,060,789				
Muskingum	2,091,579						8 ²	2,091,579	1,996,770	94,809
Noble	3,370,809						8	3,370,809	3,048,690	322,119
Perry	2,035,877	2	1,590,259			1,590,259	7	445,618	443,374	2,244
Stark	639,460						13	639,460	618,766	20,694
Tuscarawas	1,731,749						38	1,731,749	1,592,368	139,381
Vinton	1,596,510	1	1,113,697			1,113,697	7	482,813	482,813	
Washington	186,268						2	186,268	186,268	
Wayne	11,927						1	11,927	11,927	
TOTAL	35,465,374	14	13,660,013	5,002,316	0	8,657,697	285	21,805,361	20,787,443	1,017,918

¹Production from mines operating in more than one county was evenly split between the counties involved unless a by-county breakdown was provided by the operator.²Does not include mines extending into this county from adjoining counties.

TABLE 4.—1985 Ohio coal production by county and month

County ¹	Production (short tons)												
	Total annual	January	February	March	April	May	June	July	August	September	October	November	December
Athens	12,102								1,139	1,683	3,332	2,537	3,411
Belmont	5,576,562	452,213	409,830	487,800	500,704	525,344	488,814	387,360	475,251	463,794	520,826	418,931	445,695
Carroll	707,371	33,486	39,896	53,964	72,368	65,752	57,075	68,114	65,426	62,828	71,444	51,705	65,313
Columbiana	615,515	64,132	55,465	66,641	35,334	48,778	49,284	46,634	40,854	39,518	56,234	55,992	56,649
Coshocton	1,383,651	80,772	91,100	106,046	124,179	145,282	134,899	59,207	129,143	132,052	132,895	113,825	134,251
Gallia	430,624	30,030	25,253	36,077	44,592	36,786	31,951	30,987	36,429	37,721	49,207	33,374	38,217
Guernsey	444,708	46,176	66,104	50,568	58,579	47,898	35,903	25,420	28,734	32,529	20,614	13,585	18,598
Harrison	3,111,377	245,560	297,954	297,939	315,350	339,953	275,909	276,079	184,383	212,341	208,392	176,119	281,398
Hocking	214,393	12,977	14,766	6,758	20,198	15,949	7,361	24,979	31,560	25,007	15,361	21,137	18,340
Holmes	327,133	29,152	22,645	17,933	22,103	24,245	21,071	19,569	16,391	26,371	34,237	43,665	49,751
Jackson	1,175,310	106,831	111,725	116,188	102,826	66,508	80,314	89,163	86,639	92,977	106,445	91,420	124,274
Jefferson	1,933,602	184,544	165,010	183,839	137,998	144,517	130,623	146,044	165,943	174,652	178,819	160,311	161,302
Lawrence	374,984	26,211	22,996	41,617	41,204	31,796	38,093	31,163	34,473	29,821	29,231	20,456	27,923
Mahoning	284,156	20,635	24,307	18,870	21,989	22,197	14,562	33,655	16,881	27,804	21,427	29,221	32,608
Meigs	4,015,480	388,398	320,118	299,382	322,389	385,709	355,406	190,325	356,183	317,540	432,514	308,708	338,808
Monroe	3,194,227	145,851	274,653	377,490	279,401	342,697	261,515	176,387	250,839	251,956	311,248	218,251	303,939
Muskingum	2,091,579	156,239	164,143	190,082	188,350	201,415	202,885	86,612	201,988	192,543	215,471	130,861	160,990
Noble	3,370,809	300,559	238,380	275,335	263,681	287,943	293,668	180,229	300,683	340,845	346,512	236,529	306,445
Perry	2,035,877	161,501	136,647	143,927	135,383	173,833	159,807	110,849	208,028	200,424	241,254	188,982	175,242
Stark	639,460	56,988	53,724	63,470	33,800	31,379	41,894	72,271	80,047	54,127	74,489	42,562	34,709
Tuscarawas	1,731,749	150,523	151,394	170,421	151,339	131,922	145,719	114,215	142,838	153,435	167,421	123,722	128,800
Vinton	1,596,510	137,159	123,841	137,728	130,566	138,899	133,479	92,332	142,474	117,672	149,148	137,562	155,650
Washington	186,268	22,081	11,263	14,656	8,535	5,220	18,929	27,768	27,768	23,457	17,560	18,918	17,881
Wayne	11,927	1,588	1,313	1,960	700	908	1,277	1,543	1,355	1,283			
TOTAL	35,465,374	2,853,606	2,822,527	3,158,691	3,011,568	3,214,930	2,980,438	2,263,137	3,025,449	3,012,380	3,404,081	2,638,373	3,080,194

¹Production from mines operating in more than one county was evenly split between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 5.—1985 Ohio coal production by county and seam

County	Production (short tons)																			
	Total	Sharon (No. 1)	Lower Mercer (No. 3)	Upper Mercer (No. 3A)	Tionesta (No. 3B)	Brookville (No. 4)	Winters	Clarion (No. 4A)	Lower Kittanning (No. 5)	Strasburg (No. 5A)	Middle Kittanning (No. 6)	Lower Freeport (No. 6A)	Upper Freeport (No. 7)	Anderson	Harlem	Pittsburgh (No. 8)	Pomeroy- Redstone (No. 8A)	Meigs Creek (No. 9)	Waynesburg (No. 11)	Washington (No. 12)
Athens	12,102												9,786					1,818,662	1,488,270	353,900
Belmont	5,576,562								84,939		353,716	7,895	147,657		97,292		2,316			
Carroll	707,371								13,135		283,267	28,479	223,021				1,915,730			
Columbiana	615,515				64,613				579,866		803,785						15,872			
Coshocton	1,383,651																			
Gallia	430,624																			
Guernsey	444,708								13,771		216,065	157,241	73,362		196,730		152,887	214,559		
Harrison	3,111,377								1,976		72,164	140,253	292,693				1,159,001	139,118	47,447	
Hocking	214,393					52,171			137,808		127,331							107,152		
Holmes	327,133		9,823																	
Jackson	1,175,310	161,683	15,295			205,172		508,796	246,446			2,973								
Jefferson	1,933,602											1,183								
Lawrence	374,984							27,713	123,956		41,475									
Mahoning	284,156		42,263			165,156			62,330		14,407									
Meigs	4,015,480							4,010,731												
Monroe	3,194,227													13,234						
Muskingum	2,091,579										836,984		1,495							
Noble	3,370,809								61,378		1,954,593		19,906					1,072,669		
Perry	2,035,877					127,089			190,850	244	248,794		2,551					3,349,518		
Stark	639,460			69,932																
Tuscarawas	1,731,749			23,540	137,817	53,801			512,254	24,998	782,480	17,574	179,285							
Vinton	1,596,510		56,867		168,999				175,473		25,413	28								
Washington	186,268																			
Wayne	11,927		5,599			6,328												186,268		
TOTAL	35,465,374	161,683	129,847	93,472	137,817	843,329	18,803	5,698,167	2,204,182	25,242	5,955,660	1,415,068	949,756	13,234	294,022	8,071,171	787,776	6,590,855	1,721,390	353,900

¹Production from mines operating in more than one county was evenly split between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 6.—1985 Disposition of Ohio coal, by county

County ¹	Number of mines	Disposition ¹ (short tons)						Stored
		Total ²	Rail	Water	Truck	Conveyor	Unspecified/ other	
Athens	2	12,102			12,102			
Belmont	57 ³	5,691,547	2,137,228	1,219,897	2,293,439	40,972	11	97,156
Carroll	13	707,371	5,824		701,547			
Columbiana	33	626,656			626,656			4,984
Coshocton	17	1,416,592	12,540	138,046	456,676	809,330		21,813
Gallia	4	421,583		205,518	216,065			8,981
Guernsey	6	436,672		255,068	181,604			6,201
Harrison	20	3,146,769	366,567	544,880	1,606,534	628,788		17,986
Hocking	4	214,393		144,330	70,063			
Holmes	5 ³	327,485			327,485			
Jackson	13	1,172,013	876	43,034	1,117,984	10,119		3,297
Jefferson	24	1,902,623		247,739	1,654,884			47,595
Lawrence	2 ³	363,948		281,049	82,753		146	11,717
Mahoning	8	293,887			293,887			13,985
Meigs	3	4,204,518			4,749	4,199,769		57,685
Monroe	1	3,184,940		3,184,940				9,287
Muskingum	8 ³	2,080,233	49,233		299,018	1,731,972	10	3,980
Noble	7	2,650,235		38,497	309,421	2,302,291	26	636
Perry	9	2,116,939	1,476,169		640,770			13,156
Stark	13	634,563			634,563			
Tuscarawas	37	1,975,942	44,614	53,074	1,878,254			48,862
Vinton	8	1,613,323	1,132,611	16,425	464,287			19,178
Washington	2	186,268			186,268			
Wayne	1	11,927			11,927			
TOTAL	297	35,392,529	5,225,662	6,372,497	14,070,936	9,723,241	193	386,499

¹Tonnage of coal shipped from mines operating in more than one county was evenly split between the counties involved and type(s) of disposition reported unless a by-county breakdown was provided by the operator.

²Does not reflect tonnage stored. Reflects tonnage sold and shipped from mine.

³Does not include mines extending into this county from adjoining counties.

TABLE 7.—1985 Rail shipments of Ohio coal, by county of origin and carrier

County ¹	Number of mines	Shipments ¹ (short tons)					
		Total	Conrail	B & O	N & W	C & O	Y & O
Belmont	12	2,137,228	1,526,962	369,355	236,588		4,323
Carroll	1	5,824			5,824		
Coshocton	1	12,540	12,540				
Harrison	1	366,567	366,567				
Jackson	1	876				876	
Muskingum	2	49,233	49,233				
Perry	2	1,476,169	1,476,169				
Tuscarawas	1	44,614	10,177		34,437		
Vinton	2	1,132,611		2,101		1,130,510	
TOTAL	23	5,225,662	3,441,648	371,456	276,849	1,131,386	4,323

¹Tonnage of coal shipped from mines operating in more than one county was evenly split between the counties involved and the carriers reported unless a by-county breakdown was provided by the operator.

TABLE 8.—1985 Washed Ohio coal¹

		Raw coal (short tons)	Washed coal (short tons)	Loss in washing (short tons)	Loss in washing (percent)	Percent of all washed coals
By type of mining	From surface mines	14,780,000 ²	12,040,000	2,730,000	25.3	47.1
	From underground mines	21,580,000 ²	13,500,000	8,080,000	74.7	52.9
	TOTAL	36,360,000	25,540,000 ³	10,810,000	100.0	100.0
By seam	Clarion (No. 4A)	9,280,000 ²	5,640,000	3,640,000	33.7	22.1
	Lower Kittanning (No. 5)	890,000	650,000	240,000	2.2	2.6
	Middle Kittanning (No. 6)	3,720,000	2,560,000	1,160,000	10.7	10.0
	Lower Freeport (No. 6A)	1,520,000	800,000	720,000	6.7	3.1
	Pittsburgh (No. 8)	9,790,000 ²	6,620,000	3,170,000	29.3	25.9
	Pomeroy-Redstone (No. 8A)	980,000	690,000	280,000	2.6	2.7
	Meigs Creek (No. 9)	6,290,000 ²	5,390,000	900,000	8.3	21.1
	Waynesburg (No. 11)	1,750,000 ²	1,430,000	320,000	3.0	5.6
	Other ⁴	2,140,000 ²	1,760,000	380,000	3.5	6.9
	TOTAL	36,360,000	25,540,000 ³	10,810,000	100.0	100.0

¹These tonnages have been rounded to the nearest 10,000 tons to avoid inconsistencies due to rounding and estimation.

²The raw tonnage (before washing) of coal was estimated for those mines which failed to report this information. These estimates were calculated using a statewide-average loss-in-washing percentage based on raw/clean coal values deemed to be reliable.

³These figures reflect total washed coal in 1985 and do not necessarily reflect only 1985 production. In 1985, 32.5% of the total production was reported as unwashed. Coal not designated as washed or unwashed was assumed to be unwashed.

⁴Other = combined Upper Mercer (No. 3A), Brookville (No. 4), Winters, Upper Freeport (No. 7), Anderson, Washington (No. 12), and unspecified tonnages of the seams listed above.

TABLE 9.—1985 Dollar value of coal at mine, by county and mining method

County	Surface				Underground			
	Number of mines	Tonnage sold (short tons)	Value at mine ² (dollars)	Per ton average (dollars)	Number of mines	Tonnage sold (short tons)	Value at mine ² (dollars)	Per ton average (dollars)
Athens	2	12,102	\$258,969	\$21.40				
Belmont	55 ³	4,114,625	126,239,664	30.68	2 ³	1,576,922	\$55,813,531	\$35.39
Carroll	13	707,371	15,888,351	22.46				
Columbiana	32	620,023	12,664,328	20.43	1	6,633	117,402	17.70
Coshocton	17	1,416,592	52,106,102	36.78				
Gallia	3	381,560	8,771,912	22.99	1	40,023	523,967	13.09
Guernsey	6	436,672	16,001,392	36.64				
Harrison	17	1,120,254	38,304,848	34.19	3	2,026,515	66,696,132	32.91
Hocking	4	214,393	3,279,351	15.30				
Holmes	5 ³	327,485	6,272,783	19.15				
Jackson	12	1,025,204	19,881,197	19.39	1	146,809	1,998,120	13.61
Jefferson	24	1,902,623	49,255,406	25.89				
Lawrence	2 ³	363,948	8,982,403	24.68				
Mahoning	8	293,887	6,099,994	20.76				
Meigs	1	4,749	94,980	20.00	2	4,199,769	186,474,035	44.40
Monroe					1	3,184,940	138,401,723	43.46
Muskingum	8 ³	2,080,233	63,377,402	30.47				
Noble	7	2,650,235	92,941,411	35.07				
Perry	7	526,130	11,584,885	22.02	2	1,590,809	41,597,314	26.15
Stark	13	634,563	9,224,665	14.54				
Tuscarawas	37	1,975,942	48,978,632	24.79				
Vinton	7	482,813	8,806,567	18.24	1	1,130,510	50,193,038	44.40
Washington	2	186,268	3,060,374	16.43				
Wayne	1	11,927	334,386	28.04				
TOTAL	283	21,489,599	\$602,410,002	\$28.03	14	13,902,930	\$541,815,262	\$38.97

¹Sales reported from mines operating in more than one county were evenly split between the counties involved unless a by-county breakdown was provided by the operator.

²The FOB value of coal sold was estimated for those mines which failed to report this information and for those mines which reported an FOB value considered to be unreliable. These estimates were calculated using a statewide-average price per ton based on reported FOB values deemed to be reliable.

³Does not include mines extending into this county from adjoining counties.

TABLE 10.—1985 Ohio coal-mine employment¹, by occupational group and month

Occupational group	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
All production workers	5,710	5,903	5,807	5,908	5,701	5,693	5,583	5,718	5,673	5,510	5,662	5,661	5,705
Underground mines													
Tonnage employees	652	679	667	666	644	642	646	718	695	605	601	624	640
Underground production employees	2,095	2,295	2,243	2,232	2,103	2,110	2,102	2,088	2,056	1,951	1,958	1,986	2,021
Surface production employees	127	136	132	130	132	130	129	145	138	123	106	111	113
Surface mines													
Strip miners	2,815	2,773	2,748	2,852	2,794	2,784	2,684	2,748	2,773	2,806	2,983	2,924	2,912
Auger miners	21	20	17	28	28	27	22	19	11	25	14	16	19
Reclamation	201	209	207	207	205	241	233	206	221	225	178	151	134
Supervisory, technical, and clerical	1,751	1,675	1,687	1,676	1,742	1,714	1,690	1,794	1,843	1,840	1,778	1,786	1,783
Central preparation plant, central shop, etc.	1,390	1,353	1,276	1,393	1,424	1,430	1,378	1,353	1,409	1,399	1,430	1,433	1,403
TOTAL	9,052	9,140	8,977	9,184	9,072	9,078	8,884	9,071	9,146	8,974	9,048	9,031	9,025

¹Reflects employment as reported. Employment was not included for mines which were owner operated or where coal extraction was incidental to principal operation.

TABLE 11.—1985 Ohio coal-mine production employment¹, by county and month

County ²	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Athens	2	0	0	0	0	0	0	3	3	4	6	6	6
Belmont	858	884	768	812	871	874	876	866	859	839	891	868	884
Carroll	87	67	67	70	87	90	89	98	100	101	92	90	90
Columbiana	122	137	135	139	114	122	127	112	115	114	113	115	123
Coshocton	238	220	208	221	234	242	217	239	237	230	272	274	263
Gallia	86	87	86	85	84	84	83	88	88	89	89	88	87
Guernsey	49	56	59	51	81	82	73	33	36	40	27	27	27
Harrison	570	609	666	663	632	652	607	627	621	439	418	414	488
Hocking	12	15	17	19	17	15	7	7	7	7	7	10	12
Holmes	15	15	13	13	14	13	12	14	14	14	20	20	20
Jackson	119	152	167	162	129	104	104	104	104	101	101	97	97
Jefferson	275	278	285	287	240	245	244	297	287	292	282	282	285
Lawrence	81	85	81	90	92	89	89	77	72	74	68	77	75
Mahoning	62	44	45	45	37	39	39	78	77	76	93	87	89
Meigs	730	777	779	777	725	709	712	706	707	701	737	717	714
Monroe	758	831	762	748	754	748	741	800	746	741	718	778	733
Muskingum	331	313	329	345	323	322	324	331	316	320	348	346	349
Noble	254	253	254	266	267	259	246	238	253	252	253	256	264
Perry	400	354	371	371	389	399	397	412	399	413	427	430	435
Stark	98	105	112	113	61	61	64	127	120	112	104	102	91
Tuscarawas	223	248	239	256	232	223	221	144	175	214	252	236	230
Vinton	329	358	352	363	308	314	304	314	324	323	330	327	329
Washington	9	12	9	9	7	4	4	0	10	11	14	14	14
Wayne	2	3	3	3	3	3	3	3	3	3	0	0	0
TOTAL	5,710	5,903	5,807	5,908	5,701	5,693	5,583	5,718	5,673	5,510	5,662	5,661	5,705

¹Reflects employment as reported. Employment was not included for mines which were owner operated or where coal extraction was incidental to principal operation.

²For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 12.—1985 Ohio coal-mine employment¹ in central preparation plants, central shops, etc., by county and month

County ²	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	203	177	156	205	223	224	225	200	200	198	217	211	196
Carroll	1	2	2	2	0	0	0	0	0	0	0	0	0
Columbiana	39	39	39	38	39	39	39	39	39	39	41	41	41
Coshocton	32	6	6	6	37	36	35	29	44	43	47	46	46
Gallia	12	13	11	11	11	11	12	14	14	14	16	12	12
Harrison	116	163	160	185	124	125	76	105	105	88	86	86	86
Hocking	2	3	3	3	0	0	0	0	0	0	4	4	4
Jackson	18	17	16	17	18	17	17	18	17	21	19	21	21
Jefferson	58	59	20	60	59	59	61	62	53	64	68	68	66
Lawrence	19	14	14	15	22	22	22	18	18	18	20	20	20
Mahoning	14	15	14	14	13	13	13	14	16	14	16	13	13
Meigs	225	229	226	229	211	225	222	226	226	226	226	229	229
Monroe	49	49	45	44	46	45	45	49	45	45	57	62	58
Muskingum	186	191	190	189	188	186	186	187	186	187	182	182	181
Noble	200	199	197	196	204	204	202	186	202	202	204	204	203
Perry	58	57	57	57	58	58	57	57	59	60	60	60	60
Scioto	5	0	0	0	9	9	9	9	9	9	0	0	0
Stark	6	3	3	3	7	7	7	5	5	5	9	9	9
Tuscarawas	45	23	23	24	53	50	50	40	59	57	55	58	51
Vinton	90	89	89	90	90	88	91	95	94	91	85	89	89
Washington	12	5	5	5	12	12	9	0	18	18	18	18	18
TOTAL	1,390	1,353	1,276	1,393	1,424	1,430	1,378	1,353	1,409	1,399	1,430	1,433	1,403

¹Reflects employment as reported. Employment was not included for mines which were owner operated or where coal extraction was incidental to principal operation.²For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.TABLE 13.—1985 Ohio coal-mine employment¹ in supervisory, technical, and clerical positions, by county and month

County ²	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	231	230	223	225	228	226	228	250	250	245	221	226	224
Carroll	11	10	10	10	12	12	12	12	12	12	12	12	10
Columbiana	32	43	42	42	30	29	29	30	29	28	26	26	26
Coshocton	68	51	52	51	61	65	64	69	82	78	82	80	80
Gallia	33	26	26	26	37	37	37	34	34	34	36	36	36
Guernsey	5	5	5	4	10	10	9	5	6	6	2	2	2
Harrison	176	195	194	193	193	183	163	168	163	162	169	169	160
Hocking	3	4	4	3	3	3	3	4	4	4	0	0	2
Holmes	2	3	3	3	2	2	2	2	2	2	2	2	2
Jackson	19	16	16	17	20	19	18	21	20	20	20	20	19
Jefferson	55	53	54	54	47	47	47	61	61	61	59	59	57
Lawrence	14	14	14	14	18	18	18	15	15	14	7	7	8
Mahoning	12	12	12	11	11	11	11	13	13	13	14	12	12
Meigs	315	324	325	330	323	316	316	316	316	314	297	298	300
Monroe	241	240	243	241	238	239	239	240	243	236	241	246	248
Muskingum	117	87	87	88	102	100	101	143	144	141	137	137	139
Noble	92	64	64	64	90	90	87	93	110	109	109	111	112
Perry	97	93	93	92	93	93	93	100	99	101	102	103	105
Scioto	1	0	0	0	1	1	1	1	1	1	0	0	0
Stark	22	20	20	20	16	16	15	24	24	34	24	23	23
Tuscarawas	66	61	62	58	65	68	69	68	65	72	67	68	67
Vinton	128	120	134	126	130	117	117	125	132	135	133	131	133
Washington	11	4	4	4	12	12	11	0	18	18	18	18	18
TOTAL	1,751	1,675	1,687	1,676	1,742	1,714	1,690	1,794	1,843	1,840	1,778	1,786	1,783

¹Reflects employment as reported. Employment was not included for mines which were owner operated or where coal extraction was incidental to principal operation.²For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 14.—1985 Ohio surface coal-mine reclamation employment¹, by county and month

County ²	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	46	46	45	50	44	73	56	42	45	47	43	34	31
Carroll	0	0	0	0	1	1	1	0	0	0	0	0	0
Columbiana	13	12	12	11	17	17	17	15	18	15	8	8	3
Coshocton	5	5	7	5	3	8	8	2	3	6	3	4	3
Guernsey	8	7	7	8	10	11	13	9	12	5	4	5	2
Harrison	9	15	16	16	16	16	16	2	3	3	3	3	3
Hocking	1	0	0	0	2	2	3	2	2	1	0	0	0
Holmes	5	15	15	15	0	0	0	7	7	7	0	0	0
Jefferson	10	13	12	10	8	11	13	6	7	12	10	9	6
Muskingum	47	37	37	37	45	45	45	65	65	65	45	37	36
Noble	45	45	44	44	50	48	45	45	47	46	45	38	37
Stark	3	3	3	3	3	2	2	2	4	7	6	2	2
Tuscarawas	7	9	7	6	4	7	14	9	4	7	7	7	7
Washington	2	2	2	2	2	0	0	0	4	4	4	4	4
TOTAL	201	209	207	207	205	241	233	206	221	225	178	151	134

¹Reflects employment as reported. Employment was not included for mines which were owner operated or where coal extraction was incidental to principal operation.²For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 15.—1985 Wage and salary payments to Ohio coal-mine employees, by county and occupational group

County ¹	Wage and salary payments (nearest whole dollar) ²								
	All occupations	Supervisory, technical, and clerical	Tonnage employees	Underground production employees	Surface production employees	Strip miners	Auger miners	Reclamation	Central preparation plant, central shop, etc.
Athens	\$37,668					\$37,668			
Belmont	41,351,448	8,010,708	4,163,936	5,810,145	843,056	14,486,280	21,449	1,481,611	6,534,263
Carroll	2,188,789	150,011				2,011,424	8,250	13,575	5,529
Columbiana	4,431,794	625,655				2,611,703	14,122	243,279	937,035
Coshocton	13,119,887	2,741,542				9,307,888		148,650	921,807
Gallia	3,534,494	843,026	54,674	71,759		2,278,869			286,166
Guernsey	2,048,565	212,008				1,621,285	25,178	190,094	
Harrison	31,565,732	7,804,388	4,690,533	8,576,800	878,621	5,268,494		318,713	4,028,183
Hocking	516,552	96,536				334,826		41,812	43,378
Holmes	607,542	72,195				399,448		135,899	
Jackson	4,073,230	618,786		393,494	35,131	2,515,976		7,505	502,338
Jefferson	11,719,830	1,822,374				7,772,203	7,590	314,526	1,803,137
Lawrence	3,446,692	782,180				2,229,099			435,413
Mahoning	2,000,307	262,484				1,374,925			362,898
Meigs	46,162,854	13,007,783		24,950,323		67,776			8,136,972
Monroe	37,327,922	9,323,466	8,219,031	15,423,504	2,525,693				1,836,228
Muskingum	21,331,271	4,431,681				10,042,900		1,252,443	5,604,247
Noble	19,375,333	3,588,714				8,520,349	282,323	1,196,167	5,787,780
Perry	17,232,937	4,066,532	3,795,622	5,698,389		2,032,975			1,639,419
Scioto	252,959	25,296							227,663
Stark	2,861,512	542,580				2,155,427	8,250	34,324	120,931
Tuscarawas	8,685,404	1,737,160				5,456,507	85,880	195,440	1,210,417
Vinton	18,868,844	4,865,050		7,173,086		1,490,148		2,110,918	3,229,642
Washington	707,847	195,287				251,949		84,824	175,787
Wayne	1,448					1,448			
TOTAL	\$293,450,861	\$65,825,442	\$20,923,796	\$68,097,500	\$4,282,501	\$82,269,567	\$453,042	\$7,769,780	\$43,829,233

¹For those operations reporting activity in more than one county, wage and salary payments were evenly split between the counties involved unless a by-county breakdown was provided by the operator.²For those operations reporting only a total wage and salary payment to all workers, an equal pay rate was assumed for all employees. In cases where quarterly employment was reported but wage and salary payments were not, wage and salary payments for that quarter were estimated from reported payments in the other quarters to arrive at the annual figure.

Industrial minerals, other than mineral fuels, were produced in a total of 83 Ohio counties in 1985. The combined value of all nonfuel industrial minerals sold in 1985 was \$289,957,500.

The multiple-commodity operations employed 146 production people and 15 nonproduction people. Nine operations produced clay and shale and employed 39 production people and 4 nonproduction people; three operations produced limestone and shale and employed 60 production people and 2 nonproduction people; four operations pro-

duced limestone and clay and employed 36 production people and 5 nonproduction people; one operation produced sandstone and sand and gravel and employed 7 production people and 2 nonproduction people; one operation produced limestone, sandstone, shale, and clay and employed 4 production people and 2 nonproduction people. The 146 multiple-commodity production employees worked an average of 208 days in 1985. Total wages reported in 1985 for 146 production employees and 15 nonproduction employees at multiple-commodity operations were \$2,751,959. The average annual wage was \$19,244.

The total reported wages for all employees at industrial mineral operations in 1985 were \$77,065,535. The average annual wage, based on those employees for whom wages were reported, was \$22,370.

TABLE 16.—1985 Value of Ohio industrial minerals

Commodity	Sales (tons)	Change from 1984 (tons)	Value ¹	Percent of total value
Limestone and dolomite	37,013,024	+ 465,041	\$127,116,587	43.8
Sand and gravel	27,298,305	- 3,236,038	84,799,767	29.2
Salt	4,339,571	+ 514,795	43,277,374	14.9
Sandstone and conglomerate	2,073,784	- 78,798	25,017,916	8.6
Shale	1,316,518	- 1,088,648	1,778,252	0.6
Clay	968,547	+ 100,766	5,486,681	2.0
Gypsum	247,963	+ 35,571	2,355,648	0.8
Peat	29,584	+ 8,749	125,275	0.1
TOTAL	73,287,296	- 3,278,562	\$289,957,500	100.0

¹The FOB value of industrial minerals sold was estimated for those mines which failed to report this information and for those producing material for captive use. These estimates were calculated using a statewide-average price per ton based on reported FOB values.

TABLE 17.—1985 Employment at Ohio industrial mineral operations, by county and commodity

[illegible]

TABLE 17.—1985 Employment at Ohio industrial mineral operations, by county and commodity—Continued

County ¹	Number of employees ²																			
	Total		Limestone and dolomite		Sand and gravel		Sandstone and conglomerate		Clay		Shale		Salt		Gypsum		Peat		Multiple commodities	
	Pro- duction	Non- production	Pro- duction	Non- production	Pro- duction	Non- production	Pro- duction	Non- production	Pro- duction	Non- production	Pro- duction	Non- production	Pro- duction	Non- production	Pro- duction	Non- production	Pro- duction	Non- production	Pro- duction	Non- production
Erie	80	21	71	19	2		7	2												
Fayette	18	3	18	3																
Fairfield	3	1			3	1														
Franklin	104	23	39	2	65	21														
Gallia	1				1															
Geauga	59	25			4	2	55	23												
Greene	32	7	8	1	22	6			2											
Hamilton	38	30			38	30														
Hancock	30	2	30	2																
Hardin	2	9	2	9																
Harrison	1										1									
Henry	5	1			5	1														
Highland	18	16	18	16																
Hocking	4	12			2	12													2	
Holmes	38	4	16	1	9	2	3				3	3							13	1
Huron	3				2	3	1													
Jackson	10		3	3					2										5	
Knox	65	24			27	23	38	1												
Lake	141	1			1	1							140							
Lawrence	10	5			2	5			1	3	7									
Licking	19	20			17	19					1		1	1						
Logan	30	17	26	11	4	5												1		
Lorain	20	13			3		20	13												
Lucas	44	10	39	6	5	4														
Mahoning	43	8	8	6			1												34	2
Marion	33	10	29	8	2	2					2									
Medina	34	4			31	4													3	
Meigs	7	3			7	4														
Mercer	26	3	26	3																
Miami	68	34	53	14	15	20														
Monroe	6	1	6	1																
Montgomery	42	25	7	2	35	23														
Morgan	9	4	1		8	4														
Morrow	6	2			6	2														
Muskingum	75	9	50	8	4	1			2										19	
Noble	10	3	10	3																
Ottawa	84	23	72	20											12	3			15	3
Paulding	21	7	6	4																
Perry	65	7	8	4			57	3												
Pickaway	16	6	1	3	15	6														
Pike	13	14	3	5	10	9														
Portage	70	42			70	42														
Preble	17	5	5	3	12	2														
Putnam	7	4	6	4					1											
Richland	19	4			19	4														
Ross	27	8			7	4	20	4												
Sandusky	87	36	87	36																
Scioto	7	2			4	2	3	3												
Seneca	53	7	53	7																
Shelby	16	18	11	12	5	6														
Stark	45	22	8	3	31	16			3	2									3	1
Summit	19	8			18	8							1							
Trumbull	5	2			1	1	4	1												
Tuscarawas	94	9			20	2	7		22	2	2								43	5
Union	13	7	13	7																
Van Wert	15	6	15	6																
Vinton	3		3																	
Warren	19	13			19	13														
Washington	14	13	1	3	13	13														
Wayne	36	10			26	5							10	5						
Williams	7	7			7	7														
Wood	23	4	23	4																
Wyandot	145	7	134	3	10	4			3								1	3		
Maumee River	5				5															
Lake Erie	2	2			2	2														
TOTAL	2,529	958	1,124	303	751	414	241	47	34	4	18	3	202	171	12	3	1	1	146	15

¹For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

²Reflects employment as reported. Employment is not included for mines which were owner operated.

³Averages fewer than one employee per month.

LIMESTONE AND DOLOMITE

Limestone and dolomite were produced at 114 operations in 50 Ohio counties during 1985. Sales of limestone and dolomite totalled 37,013,024 tons, with Sandusky, Erie, Wyandot, Mahoning, and Franklin Counties accounting for 36.6 percent of those sales. Reported known production totalled 30,447,231 tons.

Lime produced from Ohio limestone and dolomite totalled 1,483,512 tons in 1985, and came from five operations in Ottawa, Sandusky, and Wyandot Counties.

The total value⁴ of limestone and dolomite sold in 1985

was \$127,116,587, with an average price per ton of \$3.43.

An annual average of 1,124 employees worked an average of 167 days to produce limestone and dolomite. Total wages reported in 1985 for 1,120 production employees and 303 nonproduction employees were \$32,261,161. The average annual wage, based on those employees for whom wages were reported, was \$22,671. An additional 100 employees mined limestone and dolomite along with one or more other mineral commodities.

Primary uses for crushed and broken limestone and dolomite were building, stone for portland cement concrete, and stone for bituminous concrete. Other major uses for various forms of the stone included the manufacture of portland cement and aglime (a noncalcined product).

⁴See footnote 2, p. 6.

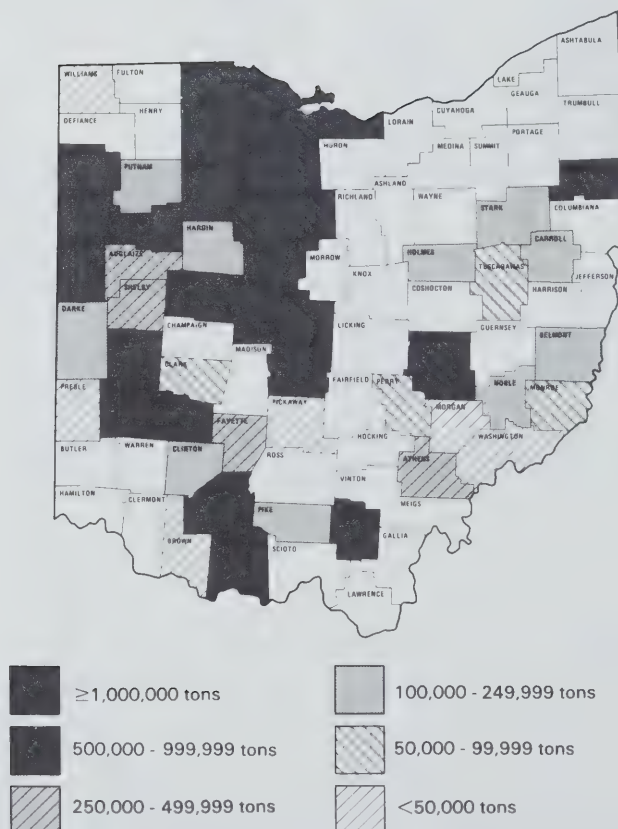


FIGURE 6.—Sales of limestone and dolomite in Ohio in 1985, by county.

TABLE 18.—1985 Ohio limestone and dolomite sales, by county and type

County	Tons sold														
	Total, all types	Crushed and broken stone								Dimension stone	For portland cement manufacture	Agricultural stone (aglime)	Raw stone for burning	Unspecified/ other	
		Total	Riprap	Metallurgical stone	Stone for portland cement concrete	Stone for bituminous concrete	Building, road base, resurfacing	Railroad ballast	Refractory stone						Unspecified/ other
Adams	1,216,483	1,135,956	10,162	61,450	70,763	49,278	670,209	220,696		53,398			39,493		41,034
Allen	994,071	979,070	11,713		19,475	52,457	809,631	58,959		26,835			8,469		6,532
Athens	320,019	320,019					320,019								
Auglaize	343,206	339,766	35,093				304,585	88					3,440		
Belmont	144,232	144,232	11,777				132,455								
Brown	6,248	6,248					6,248								
Carroll	132,189	132,189					132,189								
Clark	82,148	82,148					82,148								
Clinton	158,362	153,707	14,602				139,105						4,655		
Crawford	1,063,912	956,237	5,381	71,306		183,081	481,664	254		214,551	48,866	19,858	38,951		
Darke	168,172	168,172					168,172								
Delaware	1,414,599	1,377,573	12,373	214	428,836	363,523	1,364,582	249		455			36,726		201,265
Erie	2,937,055	2,631,753	62,429				1,669,851	100,023		7,091	74,407		104,037		
Fayette	294,807	192,794					192,794						27,606		
Franklin	2,169,967	2,169,967					2,169,967					823,897			
Greene	964,182	140,285					140,285								4,930
Hancock	788,303	783,373	16,268		20,588	49,100	462,001	235,416					7,001		
Hardin	125,250	118,249	1,929				116,320						42,969		
Highland	610,415	567,446	6,518	26,632	11,337	39,187	483,772								
Holmes	181,498	181,498					181,498								
Jackson	603,853	603,853					490,029			113,824					
Logan	552,401	286,772	14,049		70,425		202,298						4,226		265,629
Lucas	1,422,677	1,418,451	10,004		175,873	128,535	1,091,038			13,001	517,460	374,701	46,536		
Mahoning	2,452,960	1,514,263					1,083,069			431,194			20,986		
Marion	551,875	530,889	3,139		16,175	29,193	462,075	17,404		2,903					
Mercer	609,313	588,499	6,897				581,602				3,201		20,814		87,796
Miami	751,700	680,697	7,713	71,230	26,604	20,932	365,770	46,116		142,332			67,802		
Monroe	69,023	69,023					69,023								
Montgomery	571,110	402,267					402,267					168,843			
Morgan	30,185	30,185					30,185								
Muskingum	1,405,510	1,228,493	57,851		478,255	80,050	612,337						40,355		
Noble	161,305	161,305					161,305						36,213		
Ottawa	2,050,423	1,857,956	216,368	90,585	570,216	155,800	824,487	500		11,942			30,037	156,254	
Paulding	985,919	513,306	2,180		177,255	87,885	234,044					442,576			
Perry	87,861	87,861					87,861								
Pickaway	29,949	29,949													
Pike	191,996	169,284	9,721		13,739	15,696	128,928	1,200	1,229		3,082		22,712		642
Preble	35,672	32,590	1,731				29,630								
Putnam	145,189	144,547	2,165				142,382						164,197	2,560,606	
Sandusky	3,297,268	572,465	280,628	29,442	11,187	5,203	78,196			167,809					
Seneca	1,737,450	1,558,349	20,776	441			1,537,132				8,984		170,117		
Shelby	371,326	370,349	41,867				179,083	107,850					977		
Stark	102,682	102,682					78,290								
Tuscarawas	97,437	97,437	2,368				95,069						22,219		
Union	534,459	512,240	4,519		27,000	8,400	472,321								
Van Wert	610,433	534,164	74,460		46,470	102,494	207,374	323		103,043			18,836		57,433
Washington	4,849	4,849	54				4,795								
Williams	1,975	1,975			267	225	1,483						69,553		
Wood	738,803	669,250	26,374	74,036	154,533	120,771	349,703			17,869	105,264		185,303	240,338	
Wyandot	2,692,303	2,161,398	15,369		241,862	136,833	1,093,808	158,331	72,652	368,507					
TOTAL	37,013,024	29,516,330	1,016,427	425,336	2,560,860	1,694,584	21,123,079	947,409	73,881	1,674,754	761,264	1,878,741	1,234,230	2,957,198	665,261

*Sales only of limestone in Williams County. No limestone mined there.

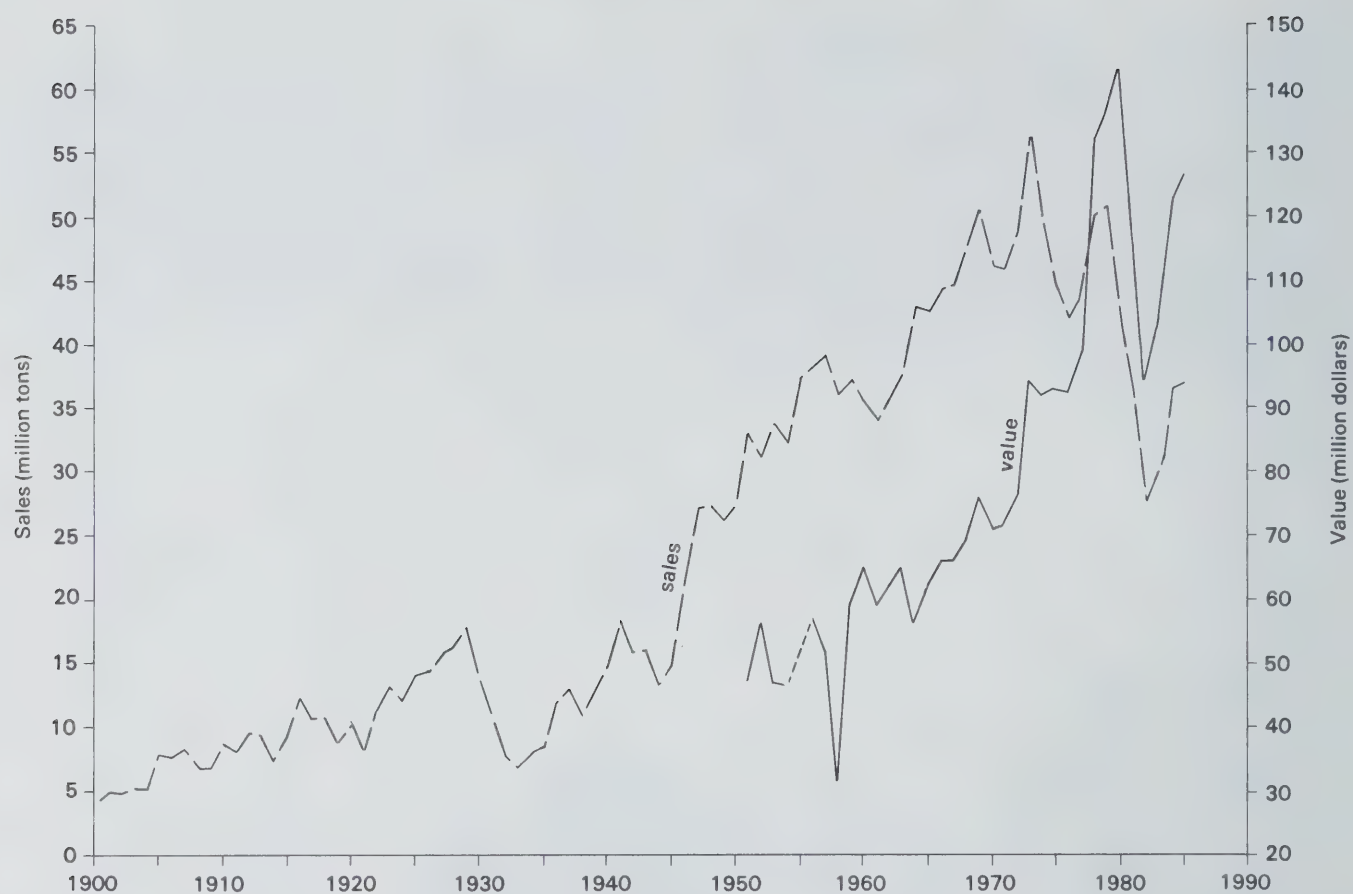


FIGURE 7.—Sales and value of limestone and dolomite in Ohio. Value line dashed where data not available.

TABLE 19.—1985 Production of lime from Ohio stone, by county and type

County	Total tons	Building (tons)	Chemical and industrial (tons)	Refractory (tons)	Other (tons)
Ottawa	78,127	54,778	23,349		
Sandusky	1,277,600		926,044	40,264	311,292
Wyandot	127,785		127,785		
TOTAL	1,483,512 ¹	54,778	1,077,178	40,264	311,292

¹Burning produced a 49.8 percent weight loss.

SAND AND GRAVEL

Sand and gravel were sold or produced at 255 operations in 62 Ohio counties during 1985. Sales⁵ of sand and gravel totalled 27,298,305 tons, of which sand comprised 13,642,894 tons and gravel comprised 13,655,411 tons. Portage, Franklin, Hamilton, Butler, and Montgomery Counties led in sales, accounting for 39.5 percent of the total. Reported known production⁵ of sand and gravel totalled 13,632,267 tons in 1985.

A total of 141,302 tons of sand and 45,103 tons of gravel were dredged from Lake Erie, and 82,685 tons of sand and

59,010 tons of gravel were dredged from the Maumee River. Total sand and gravel production from Lake Erie and the Maumee River was 328,100 tons in 1985.

The total value⁶ of sand and gravel sold in 1985 was \$84,799,767, with an average price per ton of \$3.11.

An annual average of 751 employees worked an average of 141 days in 1985 to produce sand and gravel. Total wages of \$22,994,223 were reported for 731 production employees and 400 nonproduction employees. The average annual wage, based on those employees for whom wages were reported, was \$20,331. An additional 7 employees mined sand and gravel along with one or more other mineral commodities.

Road construction and resurfacing, building, portland cement concrete, and bituminous concrete were the major uses for Ohio sand and gravel in 1985.

⁵Sales and production figures for sand and gravel include material dredged from Lake Erie and the Maumee River.

⁶Includes reported and estimated values. See footnote 2, p. 6.

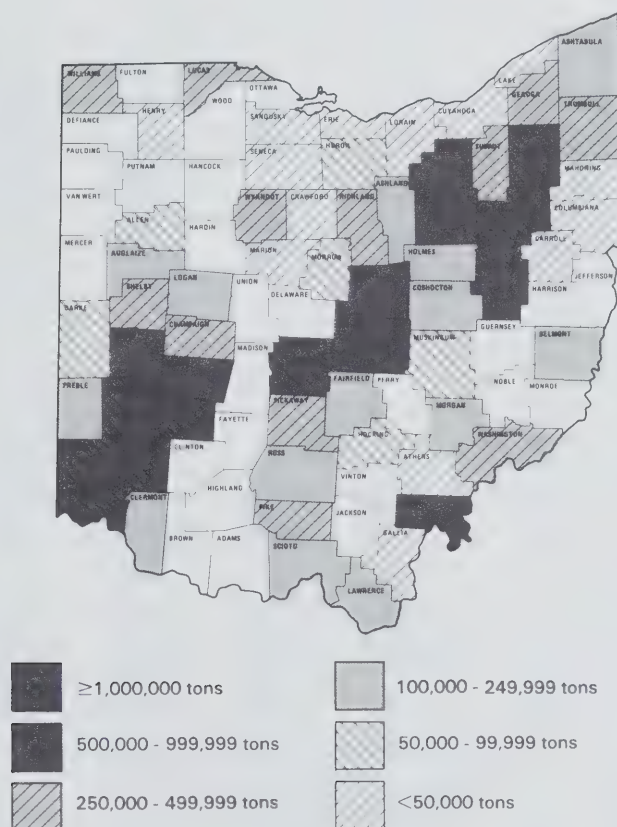


FIGURE 8.—Sales of sand and gravel in Ohio in 1985, by county.

TABLE 20.—1985 Ohio sand sales, by county and type

County	Tons sold							
	Total	Foundry	Portland cement concrete	Bituminous concrete	Building	Road construction, resurfacing	Filtration	Other/ unspecified
Allen	58,517		20,277		516	34,092	3,632	
Ashland	105,977	183	15,352		9,561	78,078		2,803
Ashtabula	119,934		63	1,000	21,654			97,217
Athens	26,620		3,000	5,713	4,180	6,620		7,107
Auglaize	96,952		78,591		4,423			13,938
Belmont	93,267		56,108	37,159				
Butler	639,226	22,800	54,847	36,390	84,288	404,463		36,438
Carroll	929					929		
Champaign	90,264				7,303	68,205		14,756
Clark	336,783	14,002	103,208	82,840	15,053	115,132		6,548
Clermont	77,681					51,772		25,909
Columbiana	16,677				1,154			15,523
Coshocton	120,380			5,648		114,732		
Crawford	212							212
Cuyahoga	44,863							44,863
Darke	26,569		16,889		9,673			7
Erie	25,500	1,962						23,538
Fairfield	56,110		10,000	15,000				31,110
Franklin	874,758		17,780	140,810	120,229	595,939		
Gallia	1,568	1,568						
Geauga	206,957		147,183		52,645	4,343	2,786	
Greene	387,997		36,717	11,824	40,253	174,569		124,634
Hamilton	1,165,484	60	71,645	42,675	145,701	586,043		319,360
Henry	19,829				874	18,955		
Hocking	35,385		10,600		4,300	6,700	2,000	11,785
Holmes	47,644		7,694	3,000	1,434	26,130		9,386
Huron	50,426	716	901	22,686	21,310	2,420	2,393	
Knox	195,400	9,000	3,755	5,189	49,441	63,452		64,563
Lake	19,549	901	11,448	7,000	200			
Lawrence	110,149						38,596	71,553
Licking	270,706	27,249			66,599	142,548		34,310
Logan	128,218		45,212		11,732		4,445	66,829
Lorain	5,098							5,098
Lucas	321,537				321,285	252		
Mahoning	2,224				1,339	885		
Marion	18,957				18,662		295	
Medina	577,335			108,709	96,368	351,800		20,458
Meigs	275,393			231,224	18,113	25,949		107
Miami	247,268							247,268
Montgomery	583,408		139,483	105,004	151,175	165,984		21,762
Morgan	47,497		10,334	10,334	10,334	10,336		6,159
Morrow	19,679				19,434	245		
Muskingum	27,728		2,423	10,639	3,279		54	11,333
Pickaway	161,483							161,483
Pike	302,965		151,860	126,827	22,158	2,120		
Portage	1,953,441		456,597	317,742	176,734	355,292	10,150	636,926
Preble	67,745		13,550	6,773	27,100	20,322		
Richland	66,892		9	6,018	17,009	41,140		2,716
Ross	95,791		5,148	31,255	18,345	5,916	1,000	34,127
Sandusky	1,600							1,600
Scioto	154,022		23,751	124,861	1,000			4,410
Seneca	2,061							2,061
Shelby	116,371		65,000	10,000				41,371
Stark	519,313		65,950	197,106	146,637		1,397	108,223
Summit	226,578	3,525			113,435	81,835		27,783
Trumbull	293,372				73,343	220,029		
Tuscarawas	458,977		61,824	102,611	116,037	171,423		7,082
Warren	449,805		16,696		107,321	40,018		285,770
Washington	125,235		15,208	26,164	52,384	29,065	2,000	414
Wayne	324,813		49,117	53,376	8,915			213,405
Williams	296,398		102,365	125,565	6,217	42,577	691	18,983
Wyandot	225,390		97,049	31,149	90,731	1,709	3,001	1,751
Lake Erie	141,302		56,563	28,487		7,071		49,181
Maumee River	82,685		82,685					
TOTAL	13,642,894	81,966	2,126,882	2,070,778	2,289,878	4,069,090	72,440	2,931,860

TABLE 21.—1985 Ohio gravel sales, by county and type

County	Tons sold						
	Total	Building	Portland cement concrete	Bituminous concrete	Road construction, resurfacing	Filtration	Other/ unspecified
Allen	16,871	5,370				3,642	7,859
Ashland	132,853	22,539			73,911	10,360	26,043
Ashtabula	59,534	1,180			2,504		55,850
Athens	19,717	3,792		5,168	8,057		2,700
Auglaize	81,599		69,002				12,597
Belmont	144,165		34,054	25,542	25,541		59,028
Butler	1,031,728	343,358	19,915		632,018		36,437
Carroll	22,828				22,828		
Champaign	187,492	30,319			98,150		59,023
Clark	658,853	126,725	119,526	120,446	165,678		126,478
Clermont	40,238				5,752		34,486
Columbiana	20,423	385					20,038
Coshocton	118,965			5,628	113,337		
Crawford	212						212
Darke	30,795	12,000	14,563				4,232
Erie	900						900
Fairfield	49,976	5,000	2,000	15,000	2,000		25,976
Franklin	1,503,906	327,743	29,907	129,701	1,016,555		
Geauga	78,749	18,591			27,001	23,881	9,276
Greene	686,148	39,622	37,641	38,848	241,987	6	328,044
Hamilton	1,170,618	473,823	8,713	7,152	464,522		216,408
Hocking	16,523	1,500	2,000		6,400	700	5,923
Holmes	91,037	11,330	9,202		47,242	17,100	6,163
Huron	7,105	7,105					
Knox	347,203	48,247	23,474	10,874	81,977		182,631
Lake	6,757	6,757					
Licking	297,832	41,886			191,075		64,871
Logan	67,321						67,321
Mahoning	6,670	4,017			2,653		
Marion	18,719						18,719
Medina	212,362	83,423			128,939		
Meigs	246,893	70,501		123,518	47,387		5,487
Miami	501,191	2,727					498,464
Montgomery	1,003,281	225,916	224,666	117,084	225,432	6,923	203,260
Morgan	130,346	27,967	27,966	27,968	27,968		18,477
Morrow	55,266	19,745			28,546	3,992	2,983
Muskingum	23,633		2,747	3,390	4,480		13,016
Pickaway	150,732						150,732
Pike	144,598	20,365	14,342	96,682	5,695	2,956	4,558
Portage	847,739	229,242	33,335	73,869	255,639	2,836	252,818
Preble	99,427	29,828	19,885	9,942	39,772		
Richland	391,082	287,356		7,757	88,525	1,076	6,368
Ross	55,482	14,210	1,575	8,988	21,051	1,285	8,373
Scioto	35,052	5,266	1,360	24,014			4,412
Seneca	515						515
Shelby	133,748		65,000	10,426			58,322
Stark	624,230	52,369	60,527	189,217	120,632	1,502	199,983
Summit	187,169	70,612			108,228		8,329
Trumbull	22,404	11,202			11,202		
Tuscarawas	443,626	107,398	28,425	111,571	193,243		2,989
Warren	722,817	227,287	23,058		107,277	6,451	358,744
Washington	212,545	56,213	39,940	44,081	63,648	4,942	3,721
Wayne	282,250	74,462	15,648	33,954	37,405	2,923	117,858
Williams	63,861	8,490			11,705		43,666
Wyandot	45,312	13,127	589			18,852	12,744
Lake Erie	45,103						45,103
Maumee River	59,010						59,010
TOTAL	13,655,411	3,168,995	929,060	1,240,820	4,755,962	109,427	3,451,147



FIGURE 9.—Sales and value of sand and gravel in Ohio. Value line dashed where data not available. 1984 and 1985 figures include Lake Erie and Maumee River dredged material.

TABLE 22.—1985 Ohio Lake Erie and Maumee River sand and gravel production

Area	Production ¹	
	Cubic yards	Short tons
Lake Erie		
Fairport (sand)	68,238	92,121
Maumee Bay	²	
Vermilion-Lorain Inner (sand)	36,430	49,181
Vermilion-Lorain Outer (gravel)	33,410	45,103
Maumee River		
Sand	61,248	82,685
Gravel	43,711	59,010
TOTAL	243,037	328,100

¹Production reported in cubic yards; converted to tons in the ratio of 1 cubic yard equals 1.35 short tons.

²No production reported for 1985.

SANDSTONE AND CONGLOMERATE

Sandstone and conglomerate were produced at 27 operations in 16 Ohio counties during 1985. Sales totalled 2,073,784 tons, with Geauga, Perry, Tuscarawas, Knox, and Ross Counties accounting for 84.8 percent of that total. Crushed sandstone and conglomerate accounted for 1,917,241 tons, and dimension stone accounted for 156,543 tons of the total sales. Reported known production of sandstone and conglomerate was 1,273,697 tons in 1985.

The total value⁷ of sandstone and conglomerate sold in

1985 was \$25,017,916, with an average price per ton of \$9.82 for crushed stone and \$37.61 for dimension stone. The overall average price per ton was \$12.06.

An annual average of 241 employees worked an average of 136 days in 1985 to produce Ohio sandstone and conglomerate. Total wages earned in 1985 by 241 production employees and 47 nonproduction employees were \$5,898,631. The average annual wage in 1985 was \$20,481. An additional 11 employees mined sandstone and conglomerate along with one or more other mineral commodities.

Crushed stone was used primarily for glass sand, foundry sand, aggregate, silica flour, and engine sand. Dimension stone was used primarily for rough construction, rough architectural purposes, and rubble.

⁷Includes reported and estimated values. See footnote 2, p. 6.

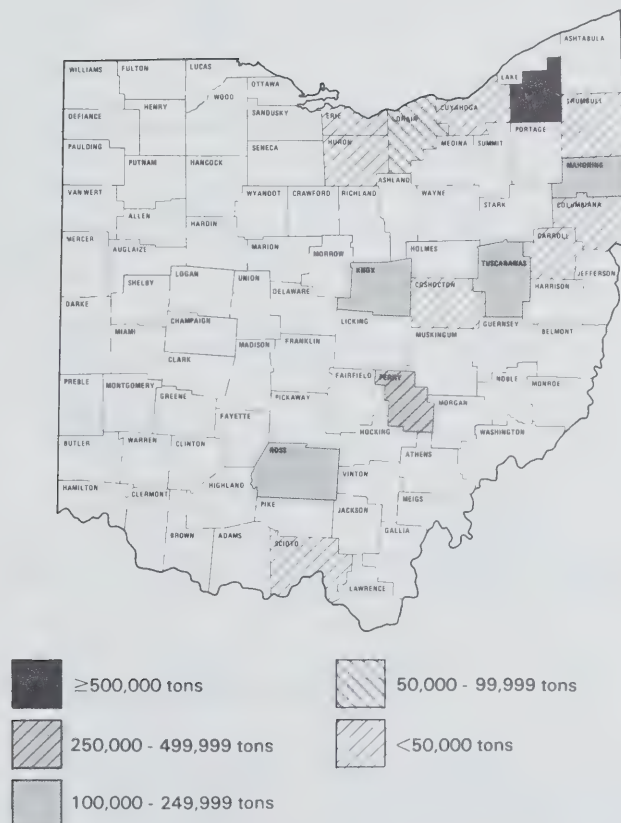


FIGURE 10.—Sales of sandstone and conglomerate in Ohio in 1985, by county.

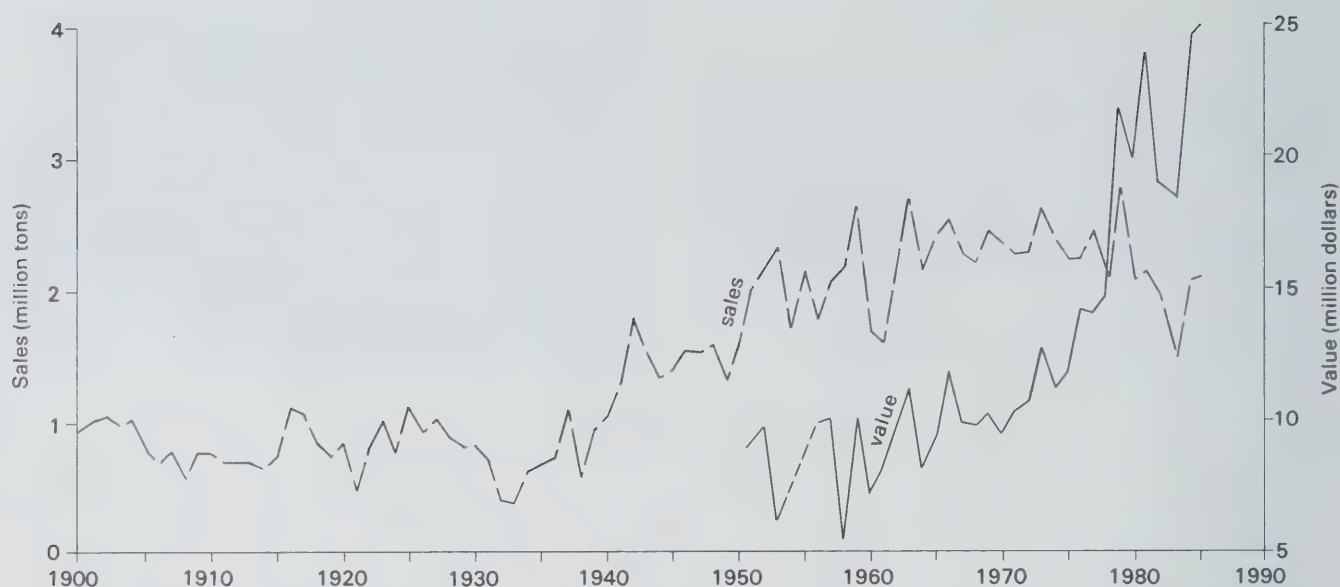


FIGURE 11.—Sales and value of sandstone and conglomerate in Ohio. Value line dashed where data not available.

TABLE 23.—1985 Ohio sales of crushed sandstone and conglomerate, by county and type

County ¹	Tons sold												
	Total	Foundry sand	Glass sand	Metallurgical pebble	Refractory	Riprap	Aggregate	Silica flour	Polishing/grinding sand	Fire and furnace sand	Engine sand	Frac sand	Other
Columbiana	35,992						1,240						35,992
Cuyahoga	1,240												
Erie	1,400					1,400							
Geauga	714,914	179,789	76,868	87,160	29,561	1,000	123,062	427	34,000	20,783	57,448	51,208	53,608
Huron	37,390					37,390							
Knox	214,394	19,765	129,280					51,102			4,843	7,466	1,938
Lorain	39,074						39,074						
Mahoning	116,903												116,903
Perry	319,617	45,968	169,677					80,453					23,519
Ross	157,588	39,955	62,331		475						32,889		21,938
Trumbull	43,691					282	43,409						
Tuscarawas	235,038	1,191								32,810			201,037
TOTAL	1,917,241	286,668	438,156	87,160	30,036	40,072	206,785	131,982	34,000	53,593	95,180	58,674	454,935

¹Stark County produced crushed sandstone, but reported no sales.

TABLE 24.—1985 Ohio sales of dimension sandstone and conglomerate, by county and type

County	Tons sold									
	Total	Refractory	Rough construction	Rubble	Grindstone	Rough architectural	Finished	Curbing	Flagging	Other
Carroll	491						491			
Coshocton	14,234	1,119				13,115				
Erie	5,129			2,763	1		2,206	40	119	
Geauga	103,498	5,226	50,068							48,204
Knox	1,011					1,011				
Lorain	15,404			8,287	21		6,620	117	359	
Ross	11,808		125			276				11,407
Scioto	4,968		4,968							
TOTAL	156,543	6,345	55,161	11,050	22	14,402	9,317	157	478	59,611

CLAY

Clay was produced at 33 operations in 15 Ohio counties during 1985. Clay sales (including material for captive use) totalled 968,547 tons, with Tuscarawas, Greene, Paulding, Holmes, and Jackson Counties accounting for 87.6 percent of the total sales. The total value⁸ of clay sold in 1985 was \$5,486,681, with an average price per ton of \$5.68. Reported

known production of clay was 775,436 tons.

An annual average of 34 employees worked an average of 76 days in 1985 mining clay. Total wages reported in 1985 for 33 production employees and 4 nonproduction employees were \$541,099. The average annual wage, based on those employees for whom wages were reported, was \$14,624. An additional 79 employees mined clay along with one or more other mineral commodities.

Clay mined in Ohio in 1985 was largely for captive use in the production of common clay products, for cement manufacture, and in the manufacture of vitrified products.

⁸Includes reported and estimated values. See footnote 2, p. 6.

TABLE 25.—1985 Ohio clay sales, by county and type

County	Tons sold					
	Total	Common clay products	Vitrified products	Refractories	Cement manufacture	Other
Auglaize	2,886	2,886				
Coshocton	3,514	3,514				
Greene	192,754				192,754	
Hocking	15,803		15,803			
Holmes	64,746	64,746				
Jackson	58,778	44,596		14,182		
Lawrence	12,808	11,550		1,258		
Medina	9,255	9,255				
Muskingum	29,456	5,815	23,567			74
Paulding	127,885				127,885	
Perry	3,660	3,660				
Putnam	1,850	1,850				
Stark	9,647			9,647		
Tuscarawas	403,925	308,553	54,280	41,092		
Wyandot	31,580	31,580				
TOTAL	968,547	488,005	93,650	66,179	320,639	74

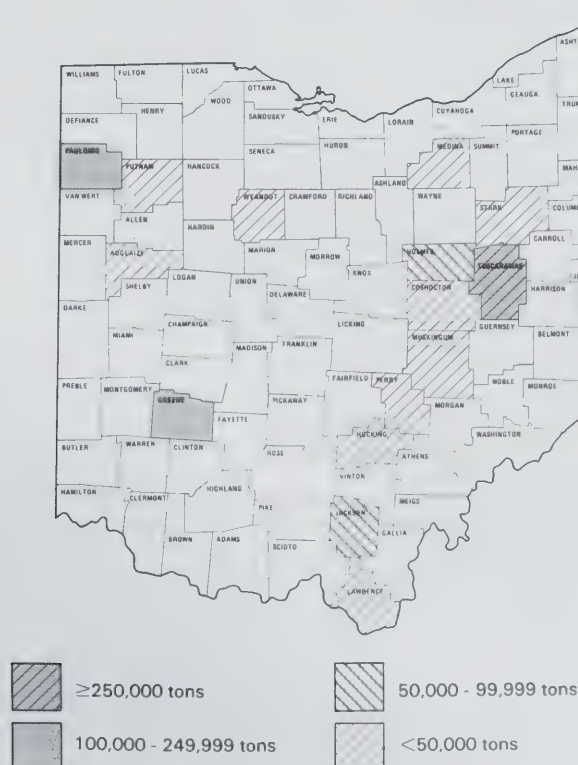


FIGURE 12.—Clay sales in Ohio in 1985, by county.

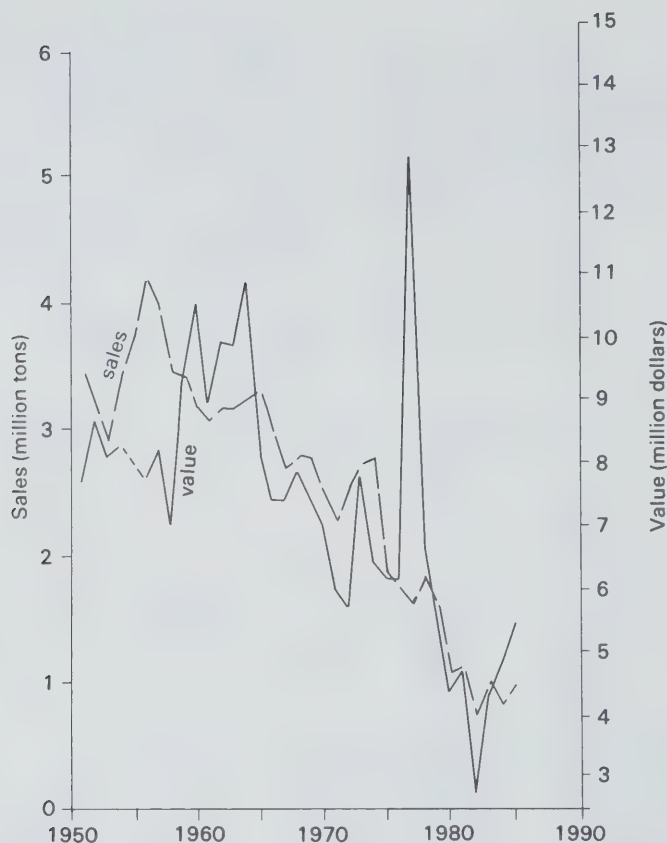


FIGURE 13.—Sales and value of clay in Ohio. Value line dashed where data not available.

SHALE

Shale was produced at 25 operations in 16 Ohio counties during 1985, with production totalling 1,035,288 tons and sales totalling 1,316,518 tons. Tuscarawas, Cuyahoga, Mahoning, Columbiana, and Marion Counties accounted for 82.1 percent of the total sales. The total value⁹ of shale sold (including material for captive use) in 1985 was \$1,778,252,

with an average price per ton of \$1.35.

An annual average of 18 employees worked an average of 164 days in 1985 mining shale. Total wages reported in 1985 for 16 production employees were \$205,939 (there were no nonproduction employees reported). The average annual wage, based on those employees for whom wages were reported, was \$12,871. An additional 103 employees mined shale along with one or more other mineral commodities in 1985.

Shale mined in Ohio in 1985 was largely for captive use in the production of common clay products, for cement manufacture, and in the production of lightweight aggregate.

⁹Includes reported and estimated values. See footnote 2, p. 6.

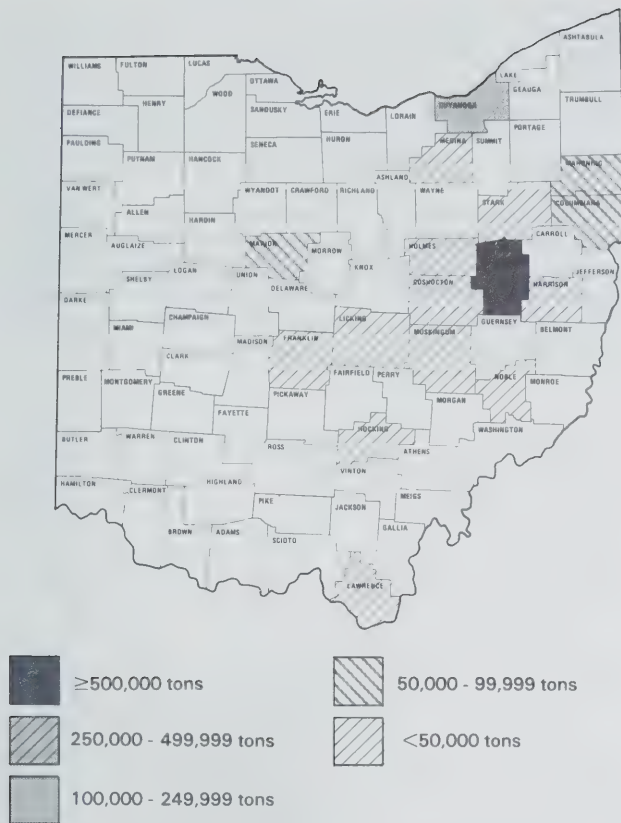


FIGURE 14.—Shale sales in Ohio in 1985, by county.

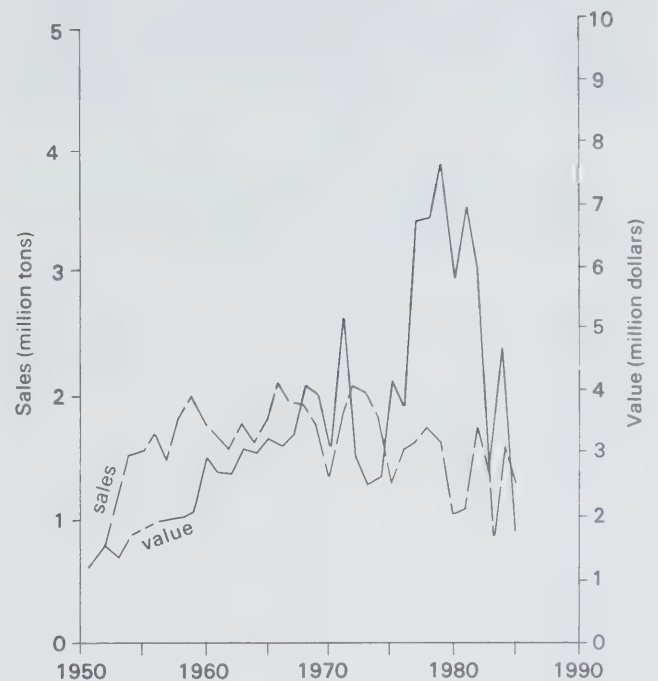


FIGURE 15.—Sales and value of shale in Ohio. Value line dashed where data not available.

TABLE 26.—1985 Ohio shale sales, by county and type

County	Tons sold						
	Total	Common clay products	Glazed ware	Vitrified products	Cement manufacture	Lightweight aggregate	Other
Columbiana	67,225	67,225					
Coshocton	13,624	1,347		12,277			
Cuyahoga	150,130					150,130	
Franklin	18,000	5,600					12,400
Harrison	46,200			46,200			
Hocking	8,567			8,567			
Holmes	9,571	5,213		4,358			
Lawrence	39,178				39,178		
Licking	20,320			20,320			
Mahoning	95,408				95,408		
Marion	63,500	63,500					
Medina	43,469	43,469					
Muskingum	22,641				22,641		
Noble	130	130					
Stark	4,040		4,040				
Tuscarawas	714,515	322,657		5,089	1,600		385,169
TOTAL	1,316,518	509,141	4,040	96,811	158,827	150,130	397,569

GYPSUM

Ohio's gypsum production and sales (including material for captive use) totalled 247,963 tons in 1985, with a reported value¹⁰ of \$2,355,648. Average price per ton was \$9.50.

An annual average of 12 employees worked an average of 317 days in 1985 producing gypsum. Total wages reported in 1985 for 12 production employees and 3 nonproduction employees were \$716,586. The average annual wage in 1985 was \$47,772.

SALT

Ohio's salt production totalled 4,215,755 tons in 1985.

Rock salt production totalled 3,582,684 tons from two underground mines, one each in Cuyahoga and Lake Counties. Three brining operations, one each in Licking, Summit, and Wayne Counties, produced a total of 20,332 tons of salt in brine and 612,739 tons of evaporated salt. Total sales of salt in 1985 amounted to 4,339,571 tons with a total value¹⁰ of \$43,277,374. Average price per ton in 1985 was \$9.97.

An annual average of 202 employees worked an average of 300 days in 1985 to produce salt. Total reported wages in 1985 for 202 production employees and 171 nonproduction employees were \$11,681,708. The average annual wage in 1985 was \$31,318. The primary use for Ohio salt in 1985 was ice control.

¹⁰Includes reported and estimated values. See footnote 2, p. 6.

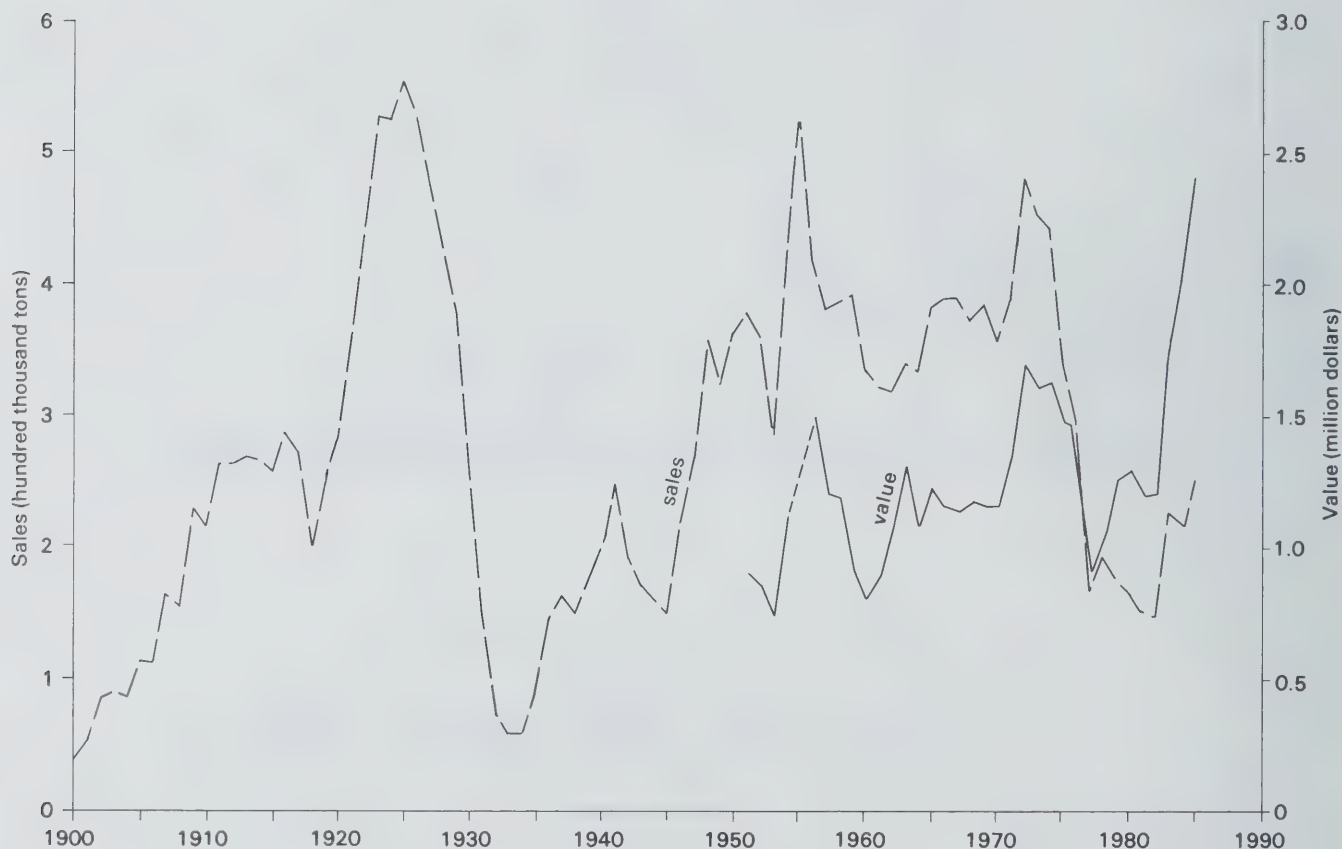


FIGURE 16.—Sales and value of gypsum in Ohio. Value line dashed where data not available. Some figures were calculated because actual figures were not reported in order to maintain confidentiality.

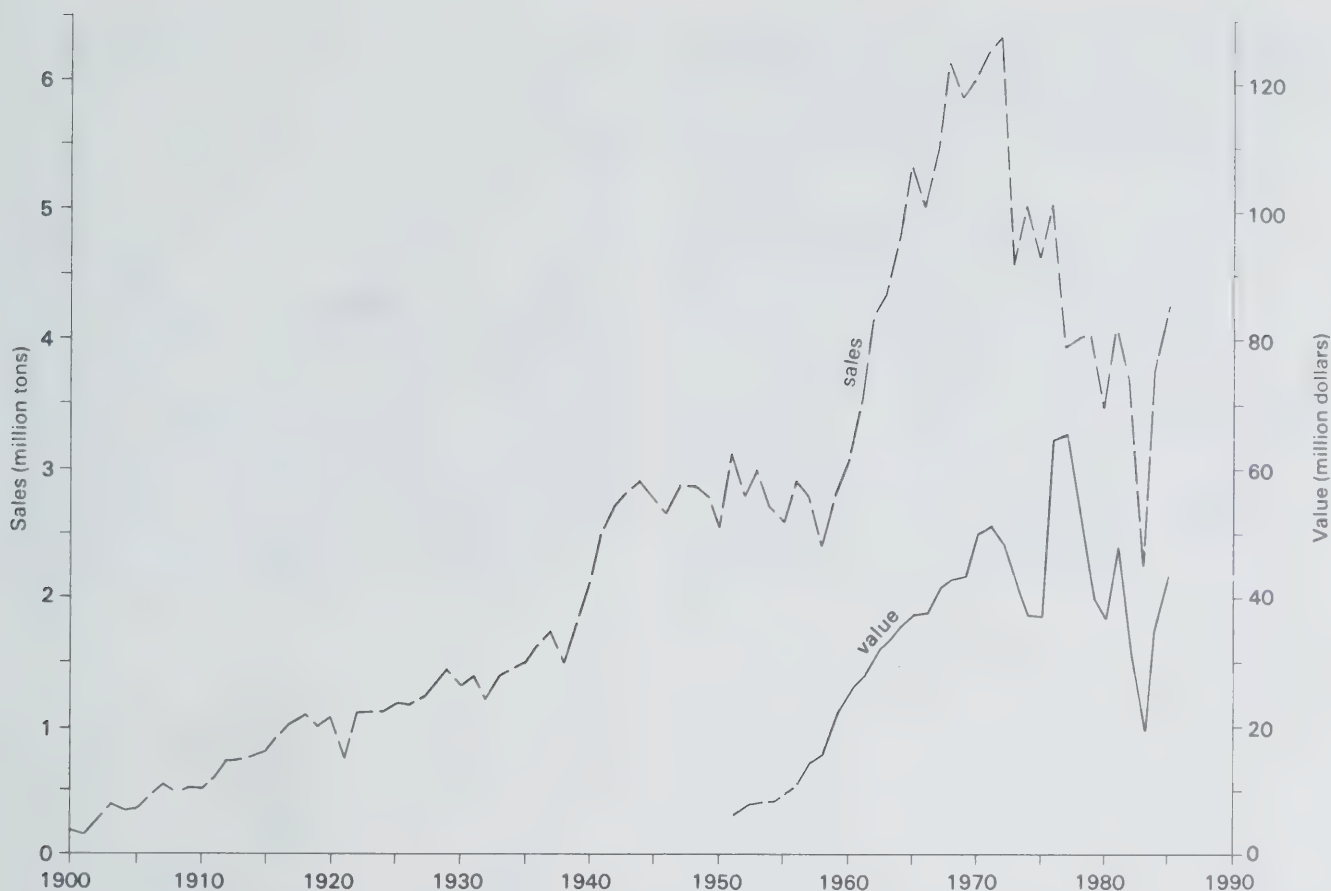


FIGURE 17.—Sales and value of salt in Ohio. Value line dashed where data not available.

PEAT

Peat was produced at four operations in four Ohio counties during 1985. A total of 29,584 tons of peat (including material for captive use), was sold in 1985, with a total value¹¹ of \$125,275. Average price per ton was \$4.23. Re-

ported known production was 17,807 tons.

An annual average of one employee worked an average of 57 days in 1985 producing peat. Total wages reported in 1985 for one production employee and one nonproduction employee were \$14,229. The average annual wage in 1985 was \$7,115.

Peat produced in Ohio was used for mulch, soil conditioning, worm culture, and legume inoculation.

¹¹Includes reported and estimated values. See footnote 2, p. 6.

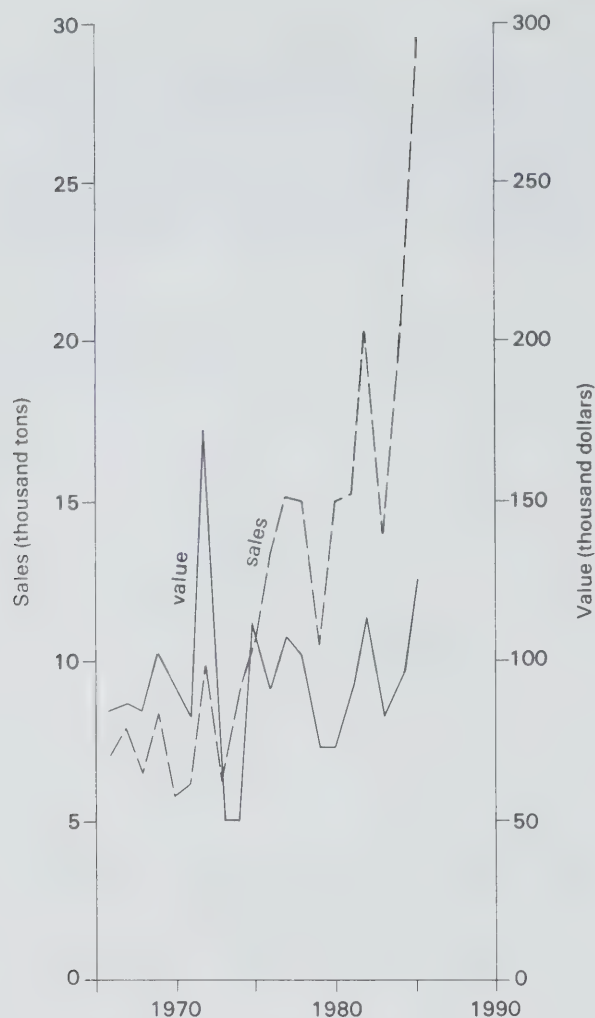


FIGURE 18.—Sales and value of peat in Ohio.

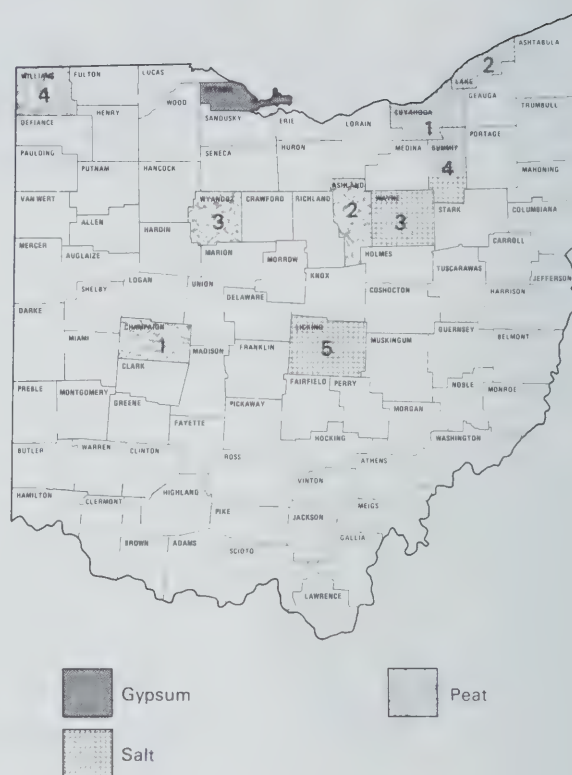


FIGURE 19.—Counties producing gypsum, salt, and peat in Ohio in 1985, and their ranking in sales.

1985 OHIO OIL AND GAS ACTIVITY

This information on oil and gas is modified from T. A. DeBrosse and M. P. McCormac, 1986, Summary of Ohio oil and gas developments in 1985: Ohio Department of Natural Resources, Division of Oil and Gas

A total of 6,326 drilling operations were reported in Ohio during 1985. This figure sets a new modern-day record for the number of drilling operations reported in a year. The previous record was set in 1983, when 6,260 well completions were reported. New wells drilled were reported in 59 of the 88 Ohio counties. In comparing the 1985 list of the 10 most active counties with the 1984 list, we note that three counties failed to reappear on the 1985 list. Morgan, Holmes, and Tuscarawas Counties have dropped from the top 10, and Geauga, Trumbull, and Wayne Counties have been added.

Ashtabula County, with a reported total of 476 new well completions, was the most active county in 1985, as it was in 1984. The reported new well completions in Ashtabula County in 1985 consisted of 167 gas wells, 301 combination wells, and 8 dry holes. Wells drilled to the "Clinton" sandstone (Silurian) accounted for all but nine of the total new wells reported.

Washington County, with a total of 349 reported new well completions, was the second most active county. This county was ranked eighth in 1984. The majority of the new wells reported for Washington County were completed in either the Berea Sandstone (Mississippian) or the Ohio Shale (Devonian). Only 130 new wells reported in this county in 1985 were "Clinton" wells.

Third-ranked Geauga County, with 345 reported new well completions, was not on the 1984 top-10 list. All but one of the reported new wells were drilled to the "Clinton" sandstone. Fourth-ranked Summit County, with 320 reported new well completions, was ranked seventh in 1984, and fifth-ranked Coshocton County, with 308 reported new well completions, maintained its 1984 position.

Perry County, with 305 reported new well completions, was ranked sixth in 1985, dropping from third place in 1984. Trumbull County was ranked seventh in 1985 with 290 reported new well completions, and Wayne County was

ranked eighth in 1985 with 278 reported new well completions. Neither Trumbull nor Wayne County appeared on the 1984 top-10 list.

Meigs County, with 257 reported new well completions, ranked ninth in 1985; this county was ranked tenth in 1984. The primary drilling targets in Meigs County in 1985 were the Berea Sandstone and the Ohio Shale. Tenth-ranked Muskingum County, with 237 reported new well completions, dropped from second place in 1984. All but nine of the new wells reported for Muskingum County were drilled to the "Clinton" sandstone.

The total number of new wells drilled for oil and gas production in 1985 was 6,228, of which 5,873 (94.30 percent) were productive and 355 were dry holes. The productive wells consisted of 1,829 gas wells, 306 oil wells, and 3,738 combination wells. A total of 151 new wells drilled were classified as exploratory wells. The total new-well footage drilled in 1985 was 23,351,818 feet, compared to a total of 18,192,031 feet in 1984. The average depth per new well drilled for oil and gas was 3,749 feet, an increase of 105 feet per well compared to the 1984 average. New "Clinton" wells averaged 4,138 feet in depth.

The total reported crude oil production in Ohio for 1985

was 14,987,592 barrels. This figure reflects a decrease of 283,508 barrels, or 1.86 percent, compared to 1984 production. The dollar value of the crude oil produced in Ohio in 1985 was \$375,421,957, which is \$44,626,417 less than the value of the 1984 production. The average price paid per barrel was \$25.05, a decrease of \$2.46 per barrel from the 1984 price.

Natural gas production in Ohio during 1985 was 182,244,648 MCF. This figure includes an estimated 1,786,712 MCF of gas utilized on the lease. In comparing the total volume of natural gas produced in Ohio in 1985 with the 1984 total, we note a decrease of 4,234,984 MCF, or 2.27 percent. The dollar value of the natural gas produced in Ohio in 1985 was \$554,946,704. The value of the estimated volume of gas utilized on the lease was not used in computing this value. The dollar value of 1985 gas production was \$33,408,361 less than the value of 1984 production. The average price paid per MCF was \$3.045, a decrease of \$0.11 per MCF from the 1984 price.

The combined total value of Ohio's 1985 crude oil and natural gas production was \$903,368,661. As of December 31, 1985, there was a total of 60,553 active wells in the state. These wells consisted of 31,343 gas wells and 29,210 oil wells.



FIGURE 20.—Production of oil and gas in Ohio.

1985 OHIO MINERAL INDUSTRIES REPORT

TABLE 27.—1985 Ohio summary of new oil and gas well drilling by county

County ¹	Gas wells		Oil wells		Combination wells				Total producing wells				Dry holes		Total wells	Total footage	Percent productive
	No.	MCFGPD ²	Footage	BOPD ²	No.	Footage	BOPD ²	MCFGPD ²	No.	Footage	BOPD ²	No.	Footage				
Allen	3	250	8,253	14	27	10,312	24	726	79	23,760	41	976	106	42,325	2	2,500	0.00
Ashland	167	30,916	595,677	301	27	1,127,188	301	68,847	1,043	1,127,188	468	99,763	1,043	1,692,865	59	25,353	69.49
Ashubula	51	5,883	195,875	25	211	45,932	64	3,755	582	207,475	140	9,638	793	449,282	165	33,104	98.32
Belmont	1	2	2,450								1	2	0	2,450	1	2,450	100.00
Carroll																	
Columbiana	28	3,665	163,252	7	121	37,116	61	2,335	1,341	334,799	68	2,935	1,462	371,915	68	371,915	100.00
Coshocton	27	3,457	110,025	23	137	65,605	238	59,586	1,366	905,400	288	20,927	1,503	612,583	107	612,583	93.51
Crawford	1	1	3,560								1	0	0	3,560	308	1,162,955	100.00
Cuyahoga	6	500	19,669								33	2,965	80	111,333	35	117,581	94.29
Defiance																	
Delaware	2	3,520	5,997	1	30	3,358	1	5	40	3,436	4	3,525	70	12,791	1	1,802	0.00
Erie	9	975	7,512								9	975	0	7,512	7	22,992	57.14
Fairfield	7	315	7,980	5	44	14,325	22	838	110	57,486	34	1,153	154	79,791	10	8,367	90.00
Gallia	8	4,241	23,426								36	4,717	55	73,406	42	99,174	80.95
Geauga	80	46,251	320,657	243	5	4,920	27	80,268	496	978,020	323	126,519	496	1,298,677	36	73,406	100.00
Guernsey	30	2,505	160,610	1	10	2,030	27	2,879	86	141,120	58	5,384	91	306,650	64	334,356	90.63
Hancock											1	0	10	2,030	2	3,278	50.00
Hardin											1	10	1	1,974	3	3,442	33.33
Harrison	23	6,008	126,675	20							43	7,763	118	246,468	43	246,468	100.00
Hocking	6	240	14,056	22	312	67,751	77	1,682	818	238,257	105	1,922	1,130	320,064	6	18,169	94.59
Holmes	51	3,696	199,311	5	20	16,679	160	12,280	777	533,769	216	15,976	797	749,759	18	49,542	92.31
Huron	12	4,260	11,225	2	3	1,952	4	130	8	3,978	18	4,390	11	17,155	23	24,546	78.26
Jackson	1	150	2,688								1	150	0	2,688	3	8,553	33.33
Knox	8	510	22,955	23	119	32,676	67	2,381	511	199,120	98	2,891	630	254,751	10	22,578	90.74
Lake	104	50,571	328,658														
Lawrence	20	2,635	65,316	1	3	681	63	51,934	125	204,849	167	102,505	125	533,507	1	3,568	53.075
Licking	10	1,264	25,511	59	367	116,595	75	6,239	494	217,668	144	7,503	861	359,774	21	65,997	100.00
Lorain																	
Lorain	7	1,540	19,678								19	1,855	41	52,750	19	52,750	100.00
Mahoning	74	60,099	352,948								204	69,057	1,068	1,070,047	204	1,070,047	100.00
Marion																	
Medina	26	2,299	80,790	9	19	4,391	185	16,070	962	651,016	220	18,369	981	736,197	1	2,989	0.00
Mercer	207	7,990	671,111	3	3	3,089	43	1,186	113	75,429	250	9,176	113	746,540	230	753,454	95.65
Meigs	44	2,114	122,186								84	4,146	214	214,367	7	17,257	97.28
Monroe																	
Morgan	103	17,055	517,176	2	19	6,454	83	6,177	495	274,497	188	23,232	514	798,127	87	223,985	96.55
Morrow																	
Muskingum	35	3,940	132,060	6	175	20,088	10	2,952	808	38,329	16	2,952	983	58,417	42	152,516	27.59
Noble	157	34,744	886,006	14	148	47,976	179	13,409	1,313	727,706	228	17,349	1,461	907,742	58	210,933	96.20
Ottawa	2	105	2,822								2	105	0	2,822	199	1,059,311	96.98
Paulding	1	213	1,437														
Perry	30	4,009	89,194	58	1,386	174,975	15	3,550	85	21,426	16	3,763	85	22,863	2	2,862	100.00
Pickaway																	
Portage	25	11,549	108,920	1	10	4,551	158	10,592	1,856	628,840	286	14,601	3,242	893,009	19	52,466	945.475
Richland																	
Sandusky																	
Seneca	1	1,396	23,677	1	3	1,787	1	7,332	2,597	547,299	1	0	3	1,787	1	2,658	0.00
Shelby	7	717	112,744	2	3	2,638	112	7,332	2,597	547,299	3	8,049	2,612	4,034	5	7,199	8.986
Stark	30	4,797	112,744	1	15	5,170	288	49,085	1,374	710,599	120	53,882	1,374	576,146	6	8,460	50.00
Summit																	
Trumbull	120	130,067	579,375														
Tuscarawas	63	7,717	287,802														
Union	2	196	2,466	1	10	1,220	143	13,348	333	698,571	206	21,065	333	986,373	1	3,989	1,293.448
Van Wert																	
Vinton																	
Washington	169	26,439	753,267	8	12	11,065	164	18,632	764	482,437	341	45,071	776	1,246,769	9	18,487	95.81
Wayne	71	10,223	264,553	4	10	16,144	187	13,236	1,684	655,076	262	23,459	1,694	935,773	12	11,593	25.00
Wood																	
Wyandot																	
TOTAL	1,829	497,629	7,400,946	306	3,321	732,467	3,738	571,836	23,928	14,197,283	5,873	1,069,465	27,249	22,330,696	355	1,021,122	94.30

¹The following counties reported no wells drilled in 1985: Adams, Auglaize, Brown, Butler, Champaign, Clark, Clermont, Clinton, Darke, Fayette, Franklin, Fulton, Greene, Hamilton, Henry, Highland, Jefferson, Lucas, Madison, Mercer, Miami, Montgomery, Pike, Preble, Putnam, Ross, Scioto, Warren, and Williams.

²MCFGDP, thousand cubic feet of gas per day; BOPD, barrels of oil per day.

TABLE 28.—1985 Ohio summary of new oil and gas well drilling by producing zone

Producing zone	No. of producing wells	No. of dry holes	Total no. of wells	Total footage	Percent productive
Pennsylvanian undifferentiated	51	15	66	42,796	77.27
Upper Mississippian undifferentiated	20	1	21	25,039	95.24
Lower Mississippian "1st & 2nd Berea"	484	73	557	791,078	86.89
Devonian					
Ohio Shale	315	0	315	1,009,825	100.00
"Big Lime"	30	6	36	41,058	83.33
Oriskany	23	6	29	69,701	79.31
Silurian					
"Newburg"	4	1	5	14,774	80.00
"Clinton-Medina"	4,888	163	5,051	20,904,821	96.77
Lower Ordovician Trenton-Rose Run	23	27	50	146,021	46.00
Cambrian undifferentiated	35	59	94	293,327	37.23
Precambrian	0	4	4	13,378	0.00
TOTAL	5,873	355	6,228	23,351,818	94.30

TABLE 29.—Ohio new well completions¹, 1975-1985

Year	Gas wells		Oil wells		Combination wells		Dry holes		Total wells
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
1975	417	34.18	208	17.05	480	39.34	115	9.43	1,220
1976	816	42.14	213	11.00	743	38.37	164	8.47	1,936
1977	844	32.16	372	14.18	1,237	47.14	171	6.52	2,624
1978	844	32.39	273	10.47	1,273	48.85	216	8.29	2,606
1979	1,097	31.86	251	7.29	1,927	55.97	168	4.88	3,443
1980	818	24.37	276	8.22	2,154	64.18	108	3.22	3,356
1981	1,256	23.15	394	7.26	3,419	63.02	356	6.56	5,425
1982	1,095	23.59	317	6.83	2,901	62.49	329	7.09	4,642
1983	1,601	25.96	471	7.63	3,664	59.43	429	6.95	6,165
1984	1,331	26.65	282	5.64	3,008	60.24	372	7.45	4,993
1985	1,829	29.37	306	4.91	3,738	60.02	355	5.70	6,228

¹Does not include wells reopened, gas-storage wells, or secondary-recovery or service wells.

TABLE 30.—*Ohio crude oil and gas production and reserves, 1975-1985*

Year	Oil		Gas	
	Production (thousand barrels)	Reserves ¹ (thousand barrels)	Production (thousand MCF)	Reserves (thousand MCF) (exclusive of storage)
1975	9,578	121,263	85,810	969,020
1976	9,994	125,268	89,770	1,025,950
1977	10,359	129,148	99,656	1,093,150
1978	11,154	131,194	115,239	1,177,511
1979	11,953	137,718	124,665	1,313,333
1980	12,928	116,000 ²	138,856	1,436,629
1981	13,551	112,000 ²	141,134	1,689,745
1982	14,571	111,000 ²	138,391	1,730,691
1983	14,971	130,000 ²	151,300	1,557,708
1984	15,271	116,000	186,480	1,405,681
1985	14,988	²	182,245 ³	1,585,925

¹Based on data from American Petroleum Institute.²Based on data from U.S. Department of Energy, Energy Information Administration. 1985 figure not available.³Included in this total is an estimated 1,786,712 MCF of gas utilized in the field.TABLE 31.—*Ohio counties¹ and their Division of Mines abbreviations²*

County	Abbreviation	County	Abbreviation	County	Abbreviation
Adams	Ads	Hamilton	Hmn	Noble	Ne
Allen	An	Hancock	Hk	Ottawa	Oa
Ashland	Ald	Hardin	Hdn	Paulding	Pg
Ashtabula	Asa	Harrison	Hn	Perry	Py
Athens	As	Henry	Hy	Pickaway	Pky
Auglaize	Ae	Highland	Hd	Pike	Pke
Belmont	Bt	Hocking	Hg	Portage	Pe
Brown	Bn	Holmes	Hs	Preble	Pre
Butler	Br	Huron	Hrn	Putnam	Pm
Carroll	Cl	Jackson	Jkn	Richland	Rd
Champaign	Cpn	Jefferson	Jfn	Ross	Rs
Clark	Ck	Knox	Kx	Sandusky	Sy
Clermont	Ct	Lake	Lke	Scioto	So
Clinton	Cln	Lawrence	Le	Seneca	Sa
Columbiana	Ca	Licking	Lg	Shelby	Shy
Coshocton	Cn	Logan	Lgn	Stark	Sk
Crawford	Cd	Lorain	Ln	Summit	St
Cuyahoga	Cya	Lucas	Ls	Trumbull	Tl
Darke	Dke	Madison	Mdn	Tuscarawas	Ts
Defiance	De	Mahoning	Mg	Union	Un
Delaware	Del	Marion	Mn	Van Wert	Vt
Erie	Ee	Medina	Ma	Vinton	Vn
Fairfield	Fd	Meigs	Ms	Warren	Wan
Fayette	Fe	Mercer	Mr	Washington	Wn
Franklin	Fn	Miami	Mi	Wayne	We
Fulton	Ftn	Monroe	Me	Williams	Ws
Gallia	Ga	Montgomery	My	Wood	Wd
Geauga	Gea	Morgan	Mon	Wyandot	Wt
Greene	Ge	Morrow	Mw		
Guernsey	Gy	Muskingum	Mum		

¹Defiance, Fulton, and Madison Counties produced no mineral commodities during 1985.²As used for Division of Mines state mine numbers.

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
Angel Valley Mining, Inc. P.O. Box 715 New Philadelphia, OH 44663 216-343-0947	Angel Valley Mining, Inc. (286)	Tuscarawas	9,893	Ts-1955	D-0439
Anthony Mining Co., Inc. P.O. Box 1298 Steubenville, OH 43952 614-282-7811	Pipo #51 (189) Maine 307 (190)	Jefferson Jefferson	84,556 118,873	Jfn-788 Jfn-789	D-0327 D-0307
Arapaho Mining, Inc. P.O. Box 542 New Philadelphia, OH 44663 216-343-4478	Arapaho Mining, Inc. (271) Arapaho Mining, Inc. (287)	Tuscarawas Tuscarawas	30,336 32,653	Ts-1921 Ts-1956	D-0375 D-0103
Arrow Head Energy, Inc. P.O. Box 231 Gnadenhutten, OH 44629 614-922-3743	Arrow Head Strip (265) Post Boy (266)	Tuscarawas Tuscarawas	32,786 9,432	Ts-1890 Ts-1912	D-0097, D-0418 IM-782
B & C Coal, Inc. Rte. 1 Box 88B Albany, OH 45710 614-698-6352	Ginsburg Mine (1)	Athens	2,316	As-591	D-0501
B & D Coal, Inc. P.O. Box 134 Hamden, OH 45634 614-384-3404	B & D Coal #2 (169) B & D Coal #1 (298)	Jackson Vinton	30,590 51,731	Jkn-570 Vn-623	D-0207 C-0993, D-0294
B & N Coal, Inc. P.O. Box 100 Dexter City, OH 45727 614-783-3575	Pipeline (230) Sorg (231) Guiler (233) B & N Coal, Inc. (303, 304) Shook (303) Lincoln Pit (304)	Noble Noble Noble Washington Washington Washington	33,149 161,190 91,661 80,684 50,401 55,183	Ne-137 Ne-138 Ne-146 Wn-51 Wn-1004 Wn-1005	D-0082 D-0209, D-0183 D-0209 D-0183
Bannock Coal Co. 43249 Harrah St. P.O. Box 98 Lafferty, OH 43951 614-968-3582	Michelena (9) Uniontown (55)	Belmont Belmont	193,413 10,216	Bt-133 Bt-1136	D-0471 D-0509
Belden Brick Co. P.O. Box 910 Canton, OH 44701 216-852-2424	Finzer-Belden (261)	Tuscarawas	8,952	Ts-1646	IM-44
Belville Mining Co., Inc. P.O. Box 309 Wheelersburg, OH 45694 614-574-8464	Brady Creek #1 (202)	Lawrence	103,613	Le-432	D-0107
Bennoc, Inc. P.O. Box 208 Morristown, OH 43759 614-782-1330	Quaker (229)	Noble	16,403	Ne-136	C-1154
Bluff Hill Coal Co. Rte. 1 Box 50A Gnadenhutten, OH 44629 614-254-9295	Bluff Hill Coal Co. (285)	Tuscarawas	20,061	Ts-1949	D-0394
Blum Coal Co. Scio-Carrollton Rd. P.O. Box 232 Carrollton, OH 44615-0232 216-627-5232	Blum-Pickens Pit (71) Guilford Lake (103)	Carroll Columbiana	63 45,411	Cl-231 Ca-B ¹	D-0530 D-0039
Boich Mining Co. P.O. Box 148 Bloomingdale, OH 43910 614-733-7311	Boich Mining Co. (178)	Jefferson	248,331	Jfn-528	C-1498, D-0247
Buckeye Coal Mining Co., Inc. P.O. Box 1 Lisbon, OH 44432 216-424-7281	Boyd Pit (95)	Columbiana	30,665	Ca-912	D-0385
Burning Hollow Coal Co. P.O. Box 88 Gnadenhutten, OH 44629 614-254-4328	Garaux (247) Dennison Mine (277)	Stark Tuscarawas	48,526 2,485	Sk-215 Ts-1932	D-0392 D-0124

¹No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
C & E Coal Co. R.D. 2 Box 177 Toronto, OH 43964 614-537-1498	C & E #2 (99)	Columbiana	23,292	Ca-921	D-0419
C & W Mining Co., Inc. 11478 State Rte. 45 Lisbon, OH 44432 216-424-9501	C & W Pit (83)	Columbiana	274	Ca-875	C-1453
C K & K, Inc. R.D. 4 Box 4600 New Philadelphia, OH 44663 614-922-0797	C K & K, Inc. (141)	Harrison	52,756	Hn-208	D-0245
C M Mining, Inc. 7001 Ridge Rd. S P.O. Box 267 East Sparta, OH 44626-0267 216-484-6355	C M Mine #1 (198)	Stark	5,209	Sk-214	IM-798
Cardinal Mining, Inc. 4014 Butler-Grange Rd. Salem, OH 44460 216-222-1487	Cardinal Strip (208)	Mahoning	42,263	Mg-624	D-0271
Central Ohio Coal Co. P.O. Box 98 Cumberland, OH 43732 614-962-2013	Muskingum Mine (228)	Muskingum, Noble	3,371,658	Ne-41	D-0056, D-0127, D-0261, D-0274
	Sidwell-Muskingum (227)	Noble	722,583	Mum-875	D-0056, D-0127, D-0274
Chisholm & Associates P.O. Box 1554 Ashland, KY 41105-1554 606-739-8552	Virginia Queen (203)	Lawrence	48,056	Le-438	D-0171
Coalbrook Mining Co. 42891 Kelly Park Rd. Columbiana, OH 44408 216-482-2365	Toth Strip (76)	Columbiana	16,917	Ca-765	D-0129
Commercial Minerals, Inc. 10900 South Ave. P.O. Box 217 North Lima, OH 44452 216-424-1463	Dungannon (78)	Columbiana	16,327	Ca-829	D-0024
	West Point (98)	Columbiana	72,485	Ca-919	D-0048, D-0412
Consolidation Coal Co. Eastern Region Cadiz, OH 43907 614-942-4641	Egypt Valley #21 (28)	Belmont	8,390	Bt-1080	C-0527, C-1207
	Franklin #125 (137)	Belmont, Harrison	635,605	Hn-203	D-0174, D-0323
	Mahoning Valley #33 (150)	Belmont, Harrison	575,830	Hn-700	D-0030, D-0054, D-0334
	Oak Park #107 (148)	Harrison	711,784	Hn-658	D-0357
Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656	Dover-Kriechbaum (4)	Belmont	10,119	Bt-78	IM-733
	2400 #1 (11)	Belmont	34,115	Bt-146	C-1027, D-0267
	Hendrysburg (12)	Belmont	127,959	Bt-147C ²	D-0311
	Flushing #9 (21)	Belmont	51,994	Bt-967	C-0992, C-1585
	Krulock (26)	Belmont	28,261	Bt-998	D-0233
	Malcuit-Ward (47)	Belmont	29,815	Bt-1118	D-0396
	Hendrysburg West (52)	Belmont	26,802	Bt-1131	D-0507
	Coshocton (107)	Coshocton	37,808	Cn-766	C-1006, D-0400
	Bloomfield (219)	Muskingum	13,234	Mum-244	D-0388
	Loase-Patton (222)	Muskingum	42,836	Mum-249	D-0299
	Rix Mills (222)	Muskingum	119,733	Mum-252	D-0299
	Rix Mills (222)	Muskingum	4,628	Mum-256	D-0299
Crawford Coal Co. 605 W. Lincoln Way Lisbon, OH 44432 216-424-7366	Crawford Coal Co. (77)	Columbiana	20,706	Ca-827	D-0243
Crooksville Coal Co. P.O. Box 149 Crooksville, OH 43731 614-697-7064	Crooksville Strip (239)	Perry	227,676	Py-317	D-0057, D-0085
Crooksville Coal Co. Strip-Tri-State Coal Sales, Inc. State Rte. 345 Rte. 2 P.O. Box 754 New Lexington, OH 43764 614-342-3512	Crooksville Coal Co. Strip-Tri-State Coal (240)	Perry	82,484	Py-317C ²	D-0461

²This mine number has been duplicated for another company.

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
Crown City Mining, Inc. 6422 E. Main St. Reynoldsburg, OH 43068 614-866-6505	Crown City Mine (125)	Gallia, Lawrence	437,874	Ga-220	C-0758, C-1247, C-1390, C-1486, D-0092, D-0123, D-0201, D-0221, D-0279
D & D Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 216-549-3127	Jack Foster (82) John Foster (84) Dickson (85) Lyons (86)	Columbiana Columbiana Columbiana Columbiana	3,696 21,110 29,573 10,234	Ca-872 Ca-885 Ca-888 Ca-891D ³	C-0744 C-0137 C-1258, D-0379 D-0032
D & J Energy, Inc. Rte. 1 Box 351 Bidwell, OH 45614 614-384-2614	D & J Energy, Inc. (173)	Jackson	31,488	Jkn-583	IM-894
D & L Contractors, Inc. P.O. Box 446 Flushing, OH 43977 614-968-4913	D & L Strip (185)	Jefferson	82,311	Jfn-780	D-0126
Daron Coal Co. 3335 Stuebenville Rd. SE Carrollton, OH 46615 216-739-5011	Harstine (274)	Tuscarawas	137,817	Ts-1924	D-0080
Dennis Clay Co. State Rte. 37 Box 10922 New Lexington, OH 43764 614-342-5269	Cannon Mine (237)	Perry	5,440	Py-296	IM-37
Di Chiera Coal Co. Box 542 Uhrichsville, OH 44683 614-269-9143	Di Chiera Coal Co. (289)	Tuscarawas	4,648	Ts-1959	D-0479
Dolen Excavating 3265 East Pike Zanesville, OH 43701 614-453-2819	Dolen Excavating (221)	Muskingum	1,495	Mum-247	D-0187
East Fairfield Coal Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452-0217 216-549-2165	"F" Mine (74) "W" Mine (89) "K" Mine (206) "C" Mine (210) "HP" Mine (211)	Columbiana Columbiana Mahoning Mahoning Mahoning	1,692 99,370 87,646 7,535 19,410	Ca-344 Ca-894 Mg-603 Mg-C ⁴ Mg-HP ⁴	D-0364 D-0041 C-1452 D-0139 D-0468
East Ohio Limestone Co. P.O. Box 699 Hartsville, OH 44632 216-877-2636	East Ohio Limestone (255)	Stark	6,723	Sk-663	IM-5
Eberhart Coal, Inc. 6406 Cleveland Ave. S East Sparta, OH 44626 216-484-4261	Eberhart #2 Hott Strip (259) Eberhart #2 Hott Strip (260) Eberhart #2 Hott Strip (263) Eberhart #2 Hott Strip (270)	Tuscarawas Tuscarawas Tuscarawas Tuscarawas	25,905 47,036 15,866 48,903	Ts-1526 Ts-1620 Ts-1882 Ts-1919	C-1195, D-0330 D-0218 D-0013 D-0075
Eberts Coal Co., Inc. P.O. Box 66 Hamden, OH 45634 614-384-3784	Quarry Mine (294)	Vinton	44,561	Vn-163	D-0210
Elk Coal Co., Inc. P.O. Box 165 McArthur, OH 45651 614-596-5520	Bowling Strip (171) Elk Strip (296)	Jackson Vinton	49,999 12,062	Jkn-576 Vn-176	D-0204 D-0366
Empire Coal Co. P.O. Box 729 Gnadenhutten, OH 44629 614-254-4395	Empire Coal Co. (256) Anco Strip (291)	Tuscarawas Tuscarawas	291,152 17,574	Ts-115 Ts-1963	C-1467, D-0190, D-0199, D-0217, D-0341 D-0512
ENZ, Inc. Rte. 1 Box 444 Dover, OH 44622 216-364-8621	Sickafoose Pit (246)	Stark	92,632	Sk-208	IM-822, IM-861, D-0295
F & M Coal Co. Costonia Rd. Box 171 Toronto, OH 43964 614-544-5203	E & E Strip (186)	Jefferson	28,453	Jfn-784	D-0091
Fairpoint Coal Co. P.O. Box 158 Fairpoint, OH 43927 614-695-3174	Mel-Worth (19) Shepardstown (139)	Belmont Belmont	8,988 35,447	Bt-927 Hn-205	C-1475, D-0483 D-0155

³This mine number has been duplicated for another company.⁴No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
G & M Mineral Co. P.O. Box 345 Berlin, OH 44610 216-893-2721	G & M Mineral Co. (106)	Coshocton	49,363	Cn-757	C-1426
GEX Hardy, Inc. P.O. Box 340 Sugarcreek, OH 44681 216-852-2431	Flushing (22) Flushing (33) Ragersville (283)	Belmont Belmont Tuscarawas	171,117 218,102 171,094	Bt-977 Bt-1099 Ts-1946	C-1472 D-0244, D-0291 D-0335
Goshen Coal Co. 323 Monroe St. Dover, OH 44622 216-343-2124	Wardell Strip (272)	Tuscarawas	6,660	Ts-1922	D-0109
Green & Burritt Coal Co. P.O. Box 422 Wellston, OH 45692 614-384-5780	Green Strip (127)	Gallia	51,756	Ga-242	C-1326, D-0226
Hanover Coal Co. P.O. Box 134 Hanoverton, OH 44423 216-223-1392	Burchfield Strip #3 (72)	Columbiana	4,467	Ca-339	D-0232
Hillcrest Coal, Ltd. 190 S. Main St. Magnolia, OH 44643 216-866-9388	Hillcrest Coal (244) Hillcrest Coal (250)	Stark Stark	9,250 8,320	Sk-196 Sk-221	C-1425, D-0381 C-1551, D-0380
Holmes Limestone Co. P.O. Box 295 Berlin, OH 44610 216-893-2721	241 Plant (161) Wayne Mine (162) Charm Pits (164) Stanwood Pit (253)	Holmes Holmes Holmes Stark	10,469 33,008 254,659 69,932	Hs-67 Hs-79 Hs-86 Sk-227	IM-3, IM-768 IM-656 D-0193 D-0384
Horizon Coal Corp. P.O. Box 618 Beach City, OH 44608 216-756-2414	Horizon Strip-Canton (251) Horizon Strip-East Sparta (254) Horizon Strip-Belden (280) Horizon Strip-Ladrach (290)	Stark Stark Tuscarawas Tuscarawas	73,373 70,980 98,186 29,418	Sk-223 Sk-230 Ts-1941 Ts-1962	D-0087 D-0444 D-0224 D-0499
Hutson Road Mining Co. 1200 W. South Range Rd. North Lima, OH 44452 216-549-5214	Hutson Road Mining Co. (96)	Columbiana	914	Ca-917	D-0391
Industrial Mining Co. P.O. Box 1 Lisbon, OH 44432 216-337-9511	R & R (65) Burns (66) Jones (67) Trares (94) Starn (194)	Carroll Carroll Carroll Columbiana Jefferson	22,159 166,569 275,355 14,530 41,475	Cl-220 Cl-223 Cl-225 Ca-909 Jfn-794	D-0284 D-0406 D-0437 D-0164 D-0480
J & D Mining Co. Rte. 4 Box 4229A New Philadelphia, OH 44663 216-339-4900	Demuth Pit (279)	Tuscarawas	55,517	Ts-1936	D-0172
James Bros. Coal Co. 190 S. Main St. Magnolia, OH 44643 216-866-9388	James Bros. Coal Co. (59) James Bros. Coal Co. (61)	Carroll Carroll	57,935 70,479	Cl-17 Cl-162	C-1232, D-0282 C-1155, C-1405, D-0408
Jeffco Sales & Mining Co. R.D. 1 Box 480 Steubenville, OH 43952 614-282-5929	McCormicks Run (90)	Columbiana	22,842	Ca-895	D-0104
Jefferson Holding, Inc. R.D. 1 Bergholz, OH 43908 614-768-2272	Elkhorn Strip (199)	Jefferson	1,183	Jfn-1277	D-0099
Johnson Mining Co. 39150 Churchill Rd. Lisbon, OH 44432 216-424-5113	Johnson Mining (88) Johnson Mining (100)	Columbiana Columbiana	8,413 26,271	Ca-893 Ca-922	D-0173 D-0005
Joyce Coal Co. P.O. Box 264 St. Clairsville, OH 43950 614-782-1330	Crescent (23)	Belmont	57,486	Bt-980	D-0258, D-0405
K & R Enterprises, Inc. P.O. Box 247 Canfield, OH 44406 216-533-9803	R-3 (79) Foltz (252)	Columbiana Stark	12,933 192,198	Ca-836 Sk-225	D-0043 D-0105

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
K D Coal Co., Inc. 3379 E. Garfield Rd. New Springfield, OH 44443 216-549-3979	Baker Mine (73)	Columbiana	13,255	Ca-343	C-1571, D-0372
Kimble Coal Co. R.D. 1 Box 386 Dover, OH 44622 216-343-1226	Kimble Clay & Limestone (262)	Tuscarawas	87,439	Ts-1727	IM-9, D-0203, D-0413
King Quarries, Inc. 2215 Adamsville Rd. Zanesville, OH 43701 614-453-9961	King Strip (217) King Strip (220) King Strip (224)	Muskingum Muskingum Muskingum	17,725 5,437 12,486	Mum-237 Mum-246 Mum-251	C-1579, D-0269 C-1224, D-0362 D-0382
Kohl Industries Rte. 4 New Philadelphia, OH 44663 216-874-4748	Black Hawk (248)	Stark	5,578	Sk-217	IM-750
Krulock, Inc. P.O. Box 300 Morristown, OH 43759 614-782-1016	Coleman Pit (51)	Belmont	6,106	Bt-1130	D-0465
Kymcoal, Inc. P.O. Box 409 Moxahala, OH 43761 614-342-1809	Kymcoal, Inc. (128)	Gallia	40,023	Ga-246	
L & M Coal Co. 10 North Layton Dr. New Concord, OH 43762 614-826-4951	L & M Mine (134)	Guernsey	5,290	Gy-303	D-0464
L & M Minerals, Inc. P.O. Box 54 Millersburg, OH 44654 216-893-2227	Evans (264) Luikert (267) Romig (276)	Tuscarawas Tuscarawas Tuscarawas	20,973 266 11,594	Ts-1884 Ts-1914 Ts-1930	IM-6 IM-741 IM-6
LaMay Coal Co., Inc. P.O. Box 663 Cambridge, OH 43725 614-439-4481	LaMay Mine (170) LaMay Mine (175)	Jackson Jackson	6,465 121,737	Jkn-573 Jkn-1054	D-0074 D-0205, D-0280
Lisbon Coal Crushers, Inc. 37544 Hunters Camp Rd. P.O. Box 492 Lisbon, OH 44432 216-424-9559	Lisbon Coal Crushers, Inc. (91) Lisbon Coal Crushers, Inc. (92)	Columbiana Columbiana	12,696 7,830	Ca-896 Ca-906	C-1447, D-0212 D-0493
M & S Coal Co., Inc. 45542 Cream Ridge Rd. Lisbon, OH 44432 216-385-0304	Todd (81) Gaydos (105)	Columbiana Columbiana	23,703 30,776	Ca-863 Ca-MS ⁵	C-1289, D-0176, D-0430 D-0238
Mac Mining Co. P.O. Box 218 Carrollton, OH 44615 216-627-5154	CAM #2 (63) CAM #3 (68) CAM #4 (70)	Carroll Carroll Carroll	20,076 10,174 6,070	Cl-207 Cl-226 Cl-230	C-1510, D-0231 D-0441 D-0495
Mackra Minerals P.O. Box 218 Carrollton, OH 44615 216-739-3341	Murray Anthony Mine (191)	Jefferson	51,129	Jfn-790	D-0336
Magnum Coal, Inc. P.O. Box 398 Lisbon, OH 44432 216-424-9501	Magnum Coal, Inc. (87)	Columbiana	4,947	Ca-891M ⁶	D-0071
Red Malcuit, Inc. 707 South Wooster Ave. P.O. Box 166 Strasburg, OH 44680-0166 216-878-7114	RMI #1 (269)	Tuscarawas	92,479	Ts-1918	C-1238, D-0236
Mansfield Hawk Mining, Inc. 514 Woodside Ave. North Canton, OH 44720 216-497-2706	Birchfield Strip #4 (102) Mansfield Hawk Mining (245)	Columbiana Stark	15,786 56,197	Ca-931 Sk-201	D-0485 D-0020

⁵No mine number has been assigned by the Division of Mines.⁶This mine number has been duplicated for another company.

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
Marietta Coal Co. 67705 Friends Church Rd. St Clairsville, OH 43950 614-695-2197	Negus-Berry (5)	Belmont	17,757	Bt-82	C-1352
	Borovich-Seaway et al. (13)	Belmont	72,856	Bt-147M ⁷	D-0022
	Snedeker-Consol et al. (17)	Belmont	92,137	Bt-865	D-0118
	Ayers (18)	Belmont	12,091	Bt-905	C-1301
	Barack-Henthorn et al. (38)	Belmont	32,678	Bt-1104	D-0088
	Seabright-Bigley (39)	Belmont	41,794	Bt-1105	D-0333
	Evick-Mick (40)	Belmont	55,431	Bt-1107	D-0064, D-0303
	Nicholson-Marcinko et al. (41)	Belmont	11,583	Bt-1108	D-0250
	Consol (42)	Belmont	74,377	Bt-1109	D-0270
	Lude (53)	Belmont	4,256	Bt-1132	D-0515
	Sikole-Ludwig (54)	Belmont	6,461	Bt-1133	D-0521
	Oliver (58)	Belmont	8,426	Bt-MAR ⁸	D-0491
Markel Mining, Inc. 417 Lincoln St. Box 33 Middleport, OH 45760 614-992-6144	Markel Mining, Inc. (214)	Meigs	4,749	Ms-306	D-0111
McCourt Mining R.D. 1 Irondale, OH 43932 216-532-9562	McCourt Mining (93)	Columbiana	1,431	Ca-908	D-0265
Merco Mining, Inc. P.O. Box 409 Moxahala, OH 43761 614-342-1809	Merco Strip #2 (126)	Gallia	124,286	Ga-240	C-0616
Ted Mesmer & Sons 10950 Woodworth Rd. North Lima, OH 44452 216-549-2385	Humenuik-Dungannon (80)	Columbiana	4,634	Ca-854	D-0389
	V Pts. Mine (204)	Mahoning	12,167	Mg-59	D-0383
Midway Coal, Inc. 23148 U.S. Rte. 30 Minerva, OH 44657 216-868-6080	Midway Coal, Inc. (60)	Carroll	1,647	Cl-22	D-0358
Miller Mining Co. Rte. 2 Box 254 Sugarcreek, OH 44681 216-852-4012	Miller Mines (163)	Holmes	10,480	Hs-85	D-0234
	Miller Mines (284)	Tuscarawas	69,099	Ts-1947	D-0350, D-0415
Milton Mining Co. P.O. Box 548 Jackson, OH 45640 614-682-7787	Greasy #1 (167)	Jackson	146,809	Jkn-548	D-0368
Mudsock Minerals, Inc. P.O. Box 963 New Philadelphia, OH 44663 216-343-2200	Welling Pit (281)	Tuscarawas	34,269	Ts-1943	D-0289
	Siffy (293)	Tuscarawas	7,941	Ts-1965	D-0518
Muskingum Mining, Inc. 6422 East Main St. Reynoldsburg, OH 43068 614-866-6505	Muskingum Mine (216)	Muskingum	670,659	Mum-206	C-0461, C-1047, C-1214, D-0007, D-0154, D-0181, D-0235, D-0342
Nacco Mining Co. Central Division 12800 Shaker Blvd. Cleveland, OH 44120 216-752-1000	Powhatan #6 (3)	Belmont	1,216,157	Bt-68	D-0360
Nutter Bros. Coal Co., Inc. P.O. Box 190 New Lexington, OH 43766 614-391-2681	Nutter Bros. Coal Co., Inc. (2)	Athens	9,786	As-NB ⁸	D-0457
	Nutter Bros. Coal Co., Inc. (160)	Hocking	1,976	Hg-316	D-0120
Ohio Amco, Inc. P.O. Box 207 Coshocton, OH 43812 614-623-0660	Simco (111)	Coshocton	34,747	Cn-794	D-0060
Ohio Coal & Construction Corp. P.O. Box 2388 Wintersville, OH 43952 614-264-7704	No. 38 Strip-Bennoc Area (6)	Belmont	118,119	Bt-91	D-0448, D-0458
	No. 38 Strip (7)	Belmont	26,358	Bt-99	C-1011
	No. 38 Strip (29)	Belmont	4,470	Bt-1094	C-1577
	No. 38 Strip (34)	Belmont	15,265	Bt-1100	D-0411, D-0165
	No. 38 Strip (35)	Belmont	53,645	Bt-1101	D-0166
	No. 38 Strip (43)	Belmont	114,882	Bt-1111	D-0256
	No. 38 Strip (48)	Belmont	43,085	Bt-1125	D-0484
	Ayers Limestone (49)	Belmont	8,667	Bt-1126	D-0486
	No. 36 Strip (182)	Jefferson	229,535	Jfn-711	D-0009, D-0180

⁷This mine number has been duplicated for another company.⁸No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
Ohio Coal & Construction Corp. (con't)	No. 38 Strip (188) No. 30 (192) No. 30 Strip (197)	Jefferson Jefferson Jefferson	88,378 12,662 17,723	Jfn-787 Jfn-791 Jfn-801	D-0079, D-0345 D-0410 D-0525
Ohio Edison Co. 76 S. Main St. Akron, OH 44308 216-384-5100	Ohio Edison Co. Strip Mine (193) Ohio Edison Co. Strip Mine (193)	Jefferson Jefferson	38,936 52,734	Jfn-792 Jfn-1267	D-0142, D-0167 D-0142
Ohio River Collieries, Inc. P.O. Box 128 Bannock, OH 43972 614-968-3504	Miller Pit (10) Schell Pit (20) Negus Pit (25) Lafferty 7400 (27) Saffell Pit (36)	Belmont Belmont Belmont Belmont Belmont	22,015 6,523 77,452 53,449 5,336	Bt-137 Bt-957 Bt-992 Bt-1074 Bt-1102	C-1534, D-0338 C-1313, D-0298 C-1023, D-0305 C-1451 D-0340
P & J Mining Co. 3130 Belmont Ave. P.O. Box 2228 Youngstown, OH 44504 216-759-9317	P & J Mining Co. (101)	Columbiana	8,824	Ca-926	D-0227
Peabody Coal Co. Eastern Division 1951 Barrett Ct. Henderson, KY 42420 502-827-0800	Sunnyhill #9 South (235) Sunnyhill #9 North (236)	Perry Perry	874,707 715,552	Py-265 Py-271	D-0324 D-0326
Plate Coal Co. 17900 State Rte. 45 Wellsville, OH 43968 216-532-2814	Plate #2 (75)	Columbiana	6,633	Ca-714	
Puskarich Limestone Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656	Puskarich Limestone (62)	Carroll	24,123	Cl-183	IM-7
Puskarich Mining, Inc. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656	New Cumberland (268)	Tuscarawas	109,702	Ts-1917	C-1132
Quality Coal Co. Rte. 1 Cheshire, OH 45620 614-992-5639	Wharton Strip (159) Broken Arrow (174) Jaymar Pit (301)	Hocking Jackson Vinton	68,087 91,731 214,285	Hg-313 Jkn-584 Vn-655	D-0145, D-0278 D-0427 D-0004, D-0219
Quarto Mining Co. 12800 Shaker Blvd. Cleveland, OH 44120 216-752-1000	Powhatan #4 (215)	Monroe	3,194,227	Me-4	D-0422, D-0433
R & E Coal Co. 8693 Bender St. Navarre, OH 44662 216-879-5864	R & E Coal Co. (275)	Tuscarawas	22,014	Ts-1925	D-0093
R & F Coal Co. 538 North Main St. P.O. Box 247 Cadiz, OH 43907 614-942-2186	Cain-Gregg (8) Newlin-Sproul (14) Hollingsworth (15) Phillips (24) Loy-McFarland (30) Collins (31) Black Oak (32) Shephard (37) Cheslock (44) Smith-Briggs (45) Burson (46) Cross (56) Polen (57) Courtwright (124) Bartolec (123) Wilkinson (114) Roahrig (115) Frye (117) Ross-Isletta (120) Adams-Hamilton (121) Wentz (122) Farrell-Moore (129) Hart (130) Watson (135)	Belmont Belmont Belmont Belmont Belmont Belmont Belmont Belmont Belmont Belmont Belmont Belmont Belmont Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Guernsey Guernsey Guernsey	117,112 254,215 181,195 411,313 103,031 59,199 103,457 126,212 39,215 106,648 27,568 7,428 24,047 82,996 40,334 20,034 76,094 40,938 51,118 94,858 17,538 173,561 171,012 26,773	Bt-127 Bt-149 Bt-153 Bt-984 Bt-1095 Bt-1097 Bt-1098 Bt-1103 Bt-1112 Bt-1116 Bt-1117 Bt-C ⁹ Bt-P ⁹ Cn-768 ¹⁰ Cn-779 ¹⁰ Cn-802 Cn-803 Cn-807 ¹⁰ Cn-811 Cn-812 Cn-814 Gy-279 Gy-300 Gy-W ⁹	D-0047 D-0053 D-0081 D-0263 D-0096 D-0143 D-0348 D-0312 D-0296 D-0423 D-0263 D-0450 D-0500 D-0208 D-0320 D-0251 D-0253 D-0370 D-0467 D-0466 D-0489 C-1497 D-0177 D-0262

⁹No mine number has been assigned by the Division of Mines.¹⁰R & F Coal Co. operated this mine from June to December. See also Wills Creek Energy Co.

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
R & F Coal Co. (con't)	Gilmore Ridge Extension (138)	Harrison	92,922	Hn-204	D-0117
	Strauss (140)	Harrison	71,898	Hn-207	D-0186
	Croskey (145)	Harrison	61,884	Hn-216	D-0386
	Lamborn (147)	Harrison	48,817	Hn-218	D-0436
	County Home-Gilmore Ridge (151)	Harrison	58,787	Hn-731	D-0044
	Jewett-Sportsman (152)	Harrison	62,733	Hn-735	D-0122
	Mihelios-Pruneski (153)	Harrison	167,202	Hn-739	D-0119
	Penova-Meyers (14)	Harrison	61,220	Hn-746	D-0073
	Matusik (155)	Harrison	20,014	Hn-M ¹¹	D-0470
	Rinks (156)	Harrison	20,055	Hn-R ¹¹	D-0416
	Varkony-Kross (183)	Jefferson	150,026	Jfn-720	C-1546, D-0158
	Cleaver-Morrison (184)	Jefferson	114,357	Jfn-750	D-0131
	Puskarich (201)	Jefferson	23,066	Jfn-P ¹¹	D-0158
	Timmons (232)	Noble	34,178	Ne-143	D-0114
	Flood-Cline (234)	Noble	12,656	Ne-FC ¹¹	D-0453
	Allgyer-Schupp (282)	Tuscarawas	60,162	Ts-1945	D-0300
R & R Minerals, Inc. Rte. 6 Skyview Rd. Box 118 Millersburg, OH 44654 216-674-4926	R & R Minerals, Inc. (119)	Coshocton	6,729	Cn-808	D-0403
R & S Coal Co. Rte. 1 Box 229 Hamden, OH 45634 614-384-5282	R & S Strip (295)	Vinton	24,424	Vn-173	D-0197
R V G, Inc. P.O. Box 250 Byesville, OH 43723 614-439-2233	R V G #4 (132)	Guernsey	59,853	Gy-301R ¹²	D-0346
Regal Mining, Inc. 3335 Steubenville Rd. SE Carrollton, OH 44615 216-739-3341	Blum-Noble (64)	Carroll	27,627	Cl-216	D-0150
	WWH (69)	Carroll	25,094	Cl-227	D-0454
Robinson & Sons Mining 35667 State Rte. 30 Lisbon, OH 44432 216-424-7489	Robinson Mine (97)	Columbiana	2,878	Ca-918	D-0395
Rodco, Inc. P.O. Box 295 Berlin, OH 44610 216-893-2721	Rodco, Inc. (104)	Holmes	6,590	Hs-87	D-0352
	Rodco, Inc. (305)	Holmes, Wayne	23,854	We-19	D-0283, D-0429
Royal Oaks Industries, Inc. P.O. Box 626 Jackson, OH 45640-0626 614-682-7787	Liberty Mine (166)	Jackson	108,563	Jkn-530	D-0003
	Royal Oaks Industries, Inc. (177)	Jackson	10,897	Jkn-1059	D-0494
S & D Construction Corp. Rte. 1 Toronto, OH 43964 614-544-5616	Rankin Mine #4 (196)	Jefferson	15,287	Jfn-797	D-0469
	Rankin Mine #3 (200)	Jefferson	13,028	Jfn-1294	D-0167
S & K Coal Co., Inc. P.O. Box 484 McArthur, OH 45651 614-596-4452	S-K Strip (297)	Vinton	8,482	Vn-177	D-0451
SME Bessemer Cement, Inc. P.O. Box 5250 Poland, OH 44514 216-499-9100	Budry (207)	Mahoning	8,965	Mg-608	IM-4
	Pinelake (209)	Mahoning	22,095	Mg-625	D-0431
Saginaw Mining Co. 1100 Superior Ave. P.O. Box 6508 Cleveland, OH 4114-2598 216-861-3300	Saginaw Mine (16)	Belmont	303,235	Bt-643	D-0328
Sands Hill Coal Co., Inc. 1203 N. Pennsylvania Ave. Wellston, OH 45692 614-384-5659	Sands Hill Strip #2 (176)	Jackson	144,114	Jkn-1055	D-0347
	Sands Hill Strip (299)	Vinton	127,268	Vn-641	C-1088, D-0309
Sands Mining Corp. 3445 Adamsville Rd. Zanesville, OH 43701 614-454-1483	Sands Mining Corp. (218)	Muskingum	130,677	Mum-239	D-0089, D-0281

¹¹No mine number has been assigned by the Division of Mines.¹²This mine number has been duplicated for another company.

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
Schiappa Coal Co., Inc. P.O. Box 728 Steubenville, OH 43952 614-282-5301	No. 43 Strip (179) Smith Mine (195)	Jefferson Jefferson	191,806 8,383	Jfn-673 Jfn-795	C-0651, C-1029, D-0188 D-0487
Schlabach Coal Co. P.O. Box 65 Baltic, OH 43804 216-897-5422	Schlabach-Noble (109)	Coshocton	13,444	Cn-776	C-0999, D-0517
Shawnee Coal Co. P.O. Box 869 Zanesville, OH 43701 614-454-2583	Shawnee Coal Co. (238) Shawnee Coal Co. (242) Shawnee Coal Co. (243)	Perry Perry Perry	36,609 45,399 19,906	Py-314 Py-323 Py-326	C-1568, C-1572, D-0290 D-0275 D-0318
Simco-Peabody 1951 Barrett Ct. Henderson, KY 42420 614-623-0660	Simco-Peabody Pit (112)	Coshocton	765,119	Cn-799	D-0023, D-0060
Southern Ohio Coal Co. P.O. Box 490 Athens, OH 45701 614-286-5051	Meigs Mine #1 (212) Meigs Mine #2 (213) Raccoon Mine #3 (300)	Meigs Meigs Vinton	1,221,618 2,789,113 1,113,697	Ms-293 Ms-294 Vn-652	D-0354 D-0355 D-0463
Star Mining Co., Inc. 3549 Marietta Rd. SE Junction City, OH 43748-9743 614-342-1440	Howdyshell (241)	Perry	28,104	Py-321	D-0365
Statewide Landfill Co. 4720 Dueber Ave. SW Canton, OH 44706 216-484-4856	Statewide Landfill (249)	Stark	542	Sk-219	IM-602
Stewart Coal Co. Lake Alma Rd. Wellston, OH 45692	Stewart Mine (172)	Jackson	42,223	Jkn-578	D-0239
T P Mining, Inc. 46938 Almar Circle St. Clairsville, OH 43950 614-269-9219	Monroe Strip (143)	Harrison	51,770	Hn-210	D-0277
Thompson Bros. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 216-549-3979	Peres Mine (205)	Mahoning	84,075	Mg-65	C-0990, D-0374
Thompson Mining Co. 182 Glass Ave. Byesville, OH 43723 614-685-6726	Jacobs Property (133)	Guernsey	8,219	Gy-301T ¹³	D-0438
Triad Mining, Inc. 204 Second St. NE New Philadelphia, OH 44663 216-364-6062	Clark (142)	Harrison	2,213	Hn-209	D-0225
Valley Coal Co. P.O. Box 148 Union Furnace, OH 43158 614-385-8521	Coonville (157) Darmac (158)	Hocking Hocking	45,181 99,149	Hg-284 Hg-295	C-1433, D-0519 C-1460
Valley Mining, Inc. Rte. 1 Box 158B Dennison, OH 44621 614-922-3942	Strip #3 (187) Burcher-Empire-White (273) Empire-White-Helter (278) Putnam Pit (288) Dichler Pit (292)	Jefferson Tuscarawas Tuscarawas Tuscarawas Tuscarawas	76,441 59,309 11,846 28,028 10,969	Jfn-785 Ts-1923 Ts-1933 Ts-1957 Ts-1964	D-0090 D-0397 D-0140 D-0474 D-0516
Varkony Mining R.D. 5 Cadiz, OH 43907 614-937-2777	Varkony Mining (146)	Harrison	24,700	Hn-217	D-0440
W. B. Coal Co. R.D. 1 Box 40 Bloomingdale, OH 43910 614-282-6503	Ann Strip 1A (144) Ann Strip (149)	Harrison Harrison	122,398 74,332	Hn-211 Hn-694	D-0376 D-0135
Walton Coal Co., Inc. 1500 Mulga Rd. Wellston, OH 45692 614-384-3787	Walton Coal Co., Inc. (168)	Jackson	11,699	Jkn-558	D-0037

¹³This mine number has been duplicated for another company.

1985 OHIO ALPHABETICAL DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	1985 production (tons)	State mine number	Division of Reclamation permit number
Waterloo Coal Co. P.O. Box 177 Oak Hill, OH 45656 614-682-7787	Bowman Strip (165)	Jackson	378,995	Jkn-367	IM-774, D-0163, D-0273, D-0286
Weirton Construction Co. 401 Pennsylvania Ave. Weirton, WV 26062 304-748-1400	#19 (180)	Jefferson	187,742	Jfn-687	C-1105, D-0404
Gene Whitsell Coal Rte. 800 Hendrysburg, OH 43744 614-758-5156	Whitsell #1 Strip (50)	Belmont	2,691	Bt-1128	D-0488
Wills Creek Energy Co. P.O. Box 663 Cambridge, OH 43725 614-622-6302	Courtwright (124) Bartolec (123) Ungurean (113) Frye (117)	Coshocton Coshocton Coshocton Coshocton	15,137 18,718 8,006 10,670	Cn-768 ¹⁴ Cn-779 ¹⁴ Cn-800 Cn-807 ¹⁴	D-0208 C-1437, D-0320 D-0178 D-0370
Y & O Coal Co. P.O. Box 1000 St. Clairsville, OH 43950 614-695-4117	Nelms #2 (136)	Harrison	690,853	Hn-169	D-0424
Zimnox Coal Co. 1211 Third St. Brilliant, OH 43913 614-598-4111	Zimnox #4 (181)	Jefferson	57,187	Jfn-703	D-0112, D-0194
Zoar Mining Co. P.O. Box 550 Zoar, OH 44697 216-874-2434	Zoar Mining Co. (257) Zoar Mining Co. (258)	Tuscarawas Tuscarawas	1,187 8,098	Ts-538 Ts-540	IM-27 IM-28

¹⁴Wills Creek Energy Co. operated this mine from January to May. See also R & F Coal Co.

**1985 OHIO DIRECTORY OF REPORTING COAL-WASHING PLANTS AND
ASSOCIATED FACILITIES, BY COUNTY**

County	Name, address, and telephone number of operator	Name of plant	Township	State mine number	Type of facility
Belmont	Bannock Coal Co. 43249 Harrah St. P.O. Box 98 Lafferty, OH 43951 614-968-3582	Bannock Coal Co. Shops		Bt-1127	shops
	Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656	Bellaire River Dock Lynn Tipple #1 Tipple #3 Tipple	Pultney Washington Flushing Flushing	Bt-876 Bt-878 Bt-963 Bt-965	dock prep plant—jig, flotation tipple tipple
	Fairpoint Coal Co. P.O. Box 158 Fairpoint, OH 43927 614-695-3174	Shop #1 Shop #2 Shop #3		Bt-1122 Bt-1123 Bt-1124	shop shop shop
	Marietta Coal Co. 67705 Friends Church Rd. St. Clairsville, OH 43950 614-695-2197	Loading Dock	Pultney	Bt-936	loading dock, prep plant—jig, flotation, centrifugal dryer, crushers, screens
	Nacco Mining Co. Central Division 12800 Shaker Blvd. Cleveland, OH 44120 216-752-1000	Powhatan #6	Washington	Bt-68	prep plant—jigs, cyclones, centrifuges, thickeners, filters, screens
	North American Coal Corp. 12800 Shaker Blvd. Cleveland, OH 44120 216-752-1000	Central Shop	York	Bt-1000	central shop
	Ohio River Collieries, Inc. P.O. Box 128 Bannock, OH 43972 614-968-3504	Amber Tipple Lafferty Tipple Lafferty Truck Shop	Union Union Union	Bt-844 Bt-947 Bt-1093	tipple tipple shop
	R & F Coal Co. 538 North Main St. P.O. Box 247 Cadiz, OH 43907 614-942-2186	Lamira Preparation Plant	Smith	Bt-108	prep plant—heavy-media washers, cyclone, centrifuges, thickeners, filters, crushers, breakers, screens
		Seaway River Terminal Rebuild Center	City of Bellaire	Bt-832 Bt-1110	dock shop
	Saginaw Mining Co. 1100 Superior Ave. P.O. Box 6508 Cleveland, OH 44114-2598 216-861-3300	Saginaw Mine	Richland	Bt-643	prep plant—heavy-media washers, crushers, screens, picking tables, magnets
Columbiana	C & E Coal Co. R.D. 2 Box 177 Toronto, OH 43964 614-537-1498	C & E Coal Co.	Madison	Ca-892	prep plant—crushers, screens
	Industrial Mining Co. P.O. Box 1 Lisbon, OH 44432 216-337-9511	Kensington Prep Plant	West	Ca-879	prep plant—heavy-media washer, cyclone, centrifuges, breaker
Coshocton	Conesville Preparation Co. Box 222 Conesville, OH 43811 614-892-2392	Conesville Preparation Co.	Franklin	Cn-810	prep plant—jig, cyclones, froth cells, flotation, filter press, screens, dryers
	Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656	Lori Tipple	Franklin	Cn-736	tipple
	R & F Coal Co. 538 North Main St. P.O. Box 247 Cadiz, OH 43907 614-942-2186	Barb Tipple	Franklin	Cn-748	tipple
	Schlabach Coal Co. P.O. Box 65 Baltic, OH 43804 216-897-5422	Bedford Tipple	Crawford	Cn-776	tipple

**1985 OHIO DIRECTORY OF REPORTING COAL-WASHING PLANTS AND
ASSOCIATED FACILITIES, BY COUNTY—Continued**

County	Name, address, and telephone number of operator	Name of plant	Township	State mine number	Type of facility
Gallia	Conrich of Ohio, Inc. P.O. Box 59 Addison, OH 45610 614-446-7040	Conrich of Ohio, Inc.	Addison	Ga-216	loading dock
	Crown City Mining, Inc. 6422 E. Main St. Reynoldsburg, OH 43068 614-866-6505	Crown City Mine	Guyan	Ga-220	prep plant—jig, cyclones, crusher, breaker, screens, dryers
	LaMay Coal Co., Inc. P.O. Box 663 Cambridge, OH 43725 614-439-4481	LaMay Tipple	Addison	Ga-229	tipple
	Mack Energy Co. P.O. Box 148 Union Furnace, OH 43158-0148 614-385-8521	Mack Energy River Terminal		Ga-236	dock
	Zinn Coal Co., Inc. R.D. 1 Box 176 Kanauga, OH 45631 614-446-1408	Zinn Coal Co., Inc.		Ga-183	tipple
Harrison	Consolidation Coal Co. Eastern Region Cadiz, OH 43907 614-942-4641	General Services #105 Georgetown Prep Plant #019	Short Creek Cadiz	Hn-5 Hn-212	general services prep plant—jigs, flotation, cyclones, cen- trifuges, filters, crushers, breaker, screens, dryer, picking tables, magnets
		Shovel Maintenance #104 Central Machine Shop	Short Creek Cadiz	Hn-618 Hn-624	maintenance shop
	R & F Coal Co. 538 North Main St. P.O. Box 247 Cadiz, OH 43907 614-942-2186	Nitrate Plant Machine Shop/Warehouse	Short Creek Cadiz	Hn-680 Hn-709	nitrate plant shop
Hocking	Nutter Bros. Coal Co., Inc. P.O. Box 190 New Lexington, OH 43766 614-391-2681	#1 Tipple	Washington	Hg-293	tipple
Jackson	Sands Hill Coal Co., Inc. 1203 N. Pennsylvania Ave. Wellston, OH 45692 614-384-5659	Sands Hill Strip #2	Milton	Jkn-1055	prep plant—heavy-media cyclone, hydro- cyclones, screens, dryer, crusher, picking table, magnets
	Waterloo Coal Co. P.O. Box 177 Oak Hill, OH 45656 614-682-7787	Bowman Strip	Bloomfield, Madison	Jkn-367	prep plant—jig, crushers, breaker, screens, dryers, wash tables
Jefferson	C & E Coal Co. R.D. 2 Box 177 Toronto, OH 43964 614-537-1498	C & E Coal Co.	Smithfield	Jfn-798	prep plant—jig, screen, flotation
	Ohio Coal & Construction Corp. P.O. Box 2388 Wintersville, OH 43952 614-264-7704	#40 Dock-Shop-Washer	Warren	Jfn-647	dock, shop, prep plant—heavy-media washer, cyclones, crushers, breaker, screens, dryers
	Route Forty-Three Washer P.O. Box 407 Richmond, OH 43944 614-282-5301	Route Forty-Three Washer	Springfield	Jfn-1290	prep plant—heavy-media washer
	W.B. Coal Co. R.D. 1 Box 40 Bloomington, OH 43910 614-282-6503	Ann Tipple	Wayne	Jfn-744	tipple
Lawrence	All American Coal, Inc. P.O. Box 644 Ironton, OH 45638 614-533-3742	All American Dock	City of Ironton	Le-416	dock
	Hanging Rock Dock Co. P.O. Box 624 Ironton, OH 45638 614-533-2088	Hanging Rock Dock Co.	Hamilton	Le-414	dock

**1985 OHIO DIRECTORY OF REPORTING COAL-WASHING PLANTS AND
ASSOCIATED FACILITIES, BY COUNTY—Continued**

County	Name, address, and telephone number of operator	Name of plant	Township	State mine number	Type of facility
Lawrence (con't)	Harbour Marine, Inc. P.O. Box 1270 Huntington, WV 25714 614-886-8444	Harbour Marine, Inc.		Le-420	tipple
	Ironton Coal Co. 3400 S. Third St. Ironton, OH 45638 614-532-5322	Ironton Coal Co.	Upper	Le-439	loading dock
	Rail River Terminal Pittston Co. Coal Group P.O. Box 4000 Lebanon, VA 24266 703-889-4000	Rail River Terminal	Perry	Le-413	dock
Mahoning	East Fairfield Coal Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452-0217 216-549-2165	Tipple Washing Plant	Beaver Beaver	Mg-621 Mg-623	tipple prep plant—cyclones, centrifuges, thickener, filter, crushers, screens, magnets
	Thompson Bros. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 216-549-3979	Tipple	Springfield	Mg-588	tipple
Meigs	Raven Hocking Coal Corp. P.O. Box 108 Mason, WV 25260 304-773-5750	Raven Dock	Sutton	Ms-307	dock
	Southern Ohio Coal Co. P.O. Box 490 Athens, OH 45701 614-286-5051	Meigs Mine No. 1	Salem	Ms-293	prep plant—heavy-media washers, flotation, cyclones, centrifuges, thickeners, filters, breaker, screens
Monroe	Quarto Mining Co. 12800 Shaker Blvd. Cleveland, OH 44120 216-752-1000	Powhatan #4	Salem	Me-4	prep plant—jigs, cyclones, centrifuges, thickeners, filters, crushers
Muskingum	King Quarries, Inc. 2215 Adamsville Rd. Zanesville, OH 43701 614-453-9961	King Strip Tipple	Washington	Mum-229	tipple
	Wills Creek Energy Co. P.O. Box 663 Cambridge, OH 43725 614-622-6302	Zanesville Tipple	Newton	Mum-243	tipple
Noble	Central Ohio Coal Co. P.O. Box 98 Cumberland, OH 43732 614-962-2013	Muskingum Mine	Brookfield	Ne-41	prep plant—jigs, flotation, cyclones, thickener, filters, crushers, breakers, screens, magnets
Perry	Peabody Coal Co. Eastern Division 1951 Barrett Ct. Henderson, KY 42420 502-827-0800	Sunnyhill Preparation Plant #0297	Pike	Py-248	prep plant—jigs, cyclones, crushers, breaker, screens, centrifuges
Scioto	Ky-Oh Transportation Co. P.O. Box 214 Wheelersburg, OH 45694 606-932-3101	Ky-Oh Transportation Co.	Porter	So-96	dock
Tuscarawas	Central Fuel Co. P.O. Box 165 New Philadelphia, OH 44663 216-339-5049	Central Fuel Co. Prep Plant	York	Ts-1938	prep plant—jig, screen, dryers
	Empire Coal Co. P.O. Box 729 Gnadenhutzen, OH 44629 614-254-4395	Empire Coal Co.	Clay	Ts-115	prep plant—jig, flotation, cyclones, filters, crushers, screens
	GEX Hardy, Inc. P.O. Box 340 Sugarcreek, OH 44681 216-852-2431	Barrs Mills Tipple	Sugar Creek	Ts-1601	tipple

**1985 OHIO DIRECTORY OF REPORTING COAL-WASHING PLANTS AND
ASSOCIATED FACILITIES, BY COUNTY—Continued**

County	Name, address, and telephone number of operator	Name of plant	Township	State mine number	Type of facility
Tuscarawas (con't)	Horizon Coal Corp. P.O. Box 618 Beach City, OH 44608 216-756-2414	Horizon Coal Wash Plant	Lawrence	Ts-1942	prep plant—jigs, cyclones, centrifuges, crushers, screens, picking tables
Vinton	Jaymar Coal Prep, Inc. Rte. 1 Cheshire, OH 45620 614-992-6637	Jaymar Prep Plant	Clinton	Vn-178	prep plant—washers, cyclones, jig, centrif- ugal dryer, thickener, Diester table, screens, filter, crusher, magnet
	Sands Hill Coal Co., Inc. 1203 N. Pennsylvania Ave. Wellston, OH 45692 614-384-5659	Sands Hill Strip	Clinton	Vn-641	prep plant—heavy-media washers, flota- tion, cyclones, centrifuge, crushers, screens, dryer, picking tables, magnets
	Southern Ohio Coal Co. P.O. Box 490 Athens, OH 45701 614-286-5051	Raccoon Mine No. 3	Wilkesville	Vn-652	prep plant—heavy-media washer, jig, flo- tation, cyclones, centrifuges, thickeners, filters, crusher, breaker, screens, magnet

1985 OHIO DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS, BY COUNTY

NOTE: This directory lists only the coal-producing operations. It does not list tipples, loading docks, preparation plants, or other active, nonproducing operations that would contribute to employment and wage statistics presented on p. 15-17. Information shown is as reported by operators.

SEAM IDENTIFICATION

1 Sharon	4A Clarion	7 Upper Freeport	12 Washington
3 Lower Mercer	5 Lower Kittanning	8 Pittsburgh	A Anderson
3A Upper Mercer	5A Strasburg	8A Pomeroy-Redstone	H Harlem
3B Tionesta	6 Middle Kittanning	9 Meigs Creek	W Winters
4 Brookville	6A Lower Freeport	11 Waynesburg	

Name of operator	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1985	Days in operation in 1985	Disposition		Employment			State mine number
									Method	Tonnage	Production		Non- produc- tion	
											Under- ground	Sur- face		
ATHENS COUNTY — Total production = 12,102 tons B & C Coal, Inc. Nutter Bros. Coal Co., Inc. BELMONT COUNTY — Total production = 5,576,562 tons Bannock Coal Co. Consolidation Coal Co.	Ginsburg Mine Nutter Bros. Coal Co., Inc.	Alexander Trimble	8 7	40 24	surface surface	strip strip	2,316 9,786	66 131	truck truck	2,316 9,786	2 4		As-591 As-NB1	
						strip strip longwall cont. miner Total	193,413 10,216 17,703 4,699 22,402	74 9 30	truck truck truck	193,413 10,216 22,402	56 8 34	3	Bt-133 Bt-1136 Hn-203 ²	
		Egypt Valley #21 Mahoning Valley #33	Warren Wheeling	8 9	48 42	surface surface	strip strip auger Total	8,390 440,423 33,571 473,994	112	truck truck	15,028 473,994	14	7	Bt-1080 Hn-700 ²
							strip auger Total	29,431 4,684 34,115	30	rail water truck Total	21,024 188 12,903 34,115	3	Bt-146	
	Cravat Coal Co.	2400 #1	Flushing	8	40	surface	strip auger Total	51,994	61	rail water truck Total	1,199 34,326 16,469 51,994	9	Bt-967	
		Flushing #9	Flushing	9	42	surface	strip	51,994	150	rail water truck Total	120,105 689 7,165 127,959	10	Bt-147C ³	
		Hendrysburg	Kirkwood	8	36	surface	strip auger Total	116,331 11,628 127,959	51	rail water truck Total	8,889 7,815 10,098 26,802	17	Bt-1131	
		Hendrysburg West	Kirkwood	8		surface	strip	26,802	103	rail water truck Total	22,834 5,427 28,261	4	Bt-998	
		Krulock	Richland	8		surface	strip auger Total	26,658 603 28,261	34	rail	29,815	4	Bt-1118	
		Malcuit-Ward	Warren	8		surface	strip auger Total	10,909 18,906 29,815	66	rail water truck Total	5,302 547 4,270 10,119	2	Bt-78	
	Dover-Kriechbaum	York	8	54	surface	strip	10,119	50	truck	8,988	9	7	Bt-927 Hn-205	
Fairpoint Coal Co.	Mei-Worth Shepardstown	Richland Wheeling	8 9 11	42 36 32	surface surface	strip strip	8,988 35,447	50 50	truck truck	8,988 35,447				

¹No mine number has been assigned by the Division of Mines.
²See also Harrison County.
³See also Harrison County.

¹No mine number has been assigned by the Division of Mines.
²See also Harrison County.
³This mine number has been duplicated for another company.

1985 OHIO DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS, BY COUNTY—Continued

Name of operator	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1985	Days in operation in 1985	Disposition		Employment			State mine number	
									Method	Tonnage	Under- ground	Production	Non- produc- tion		Sur- face
BELMONT COUNTY (continued)	GEX Hardy, Inc.	Flushing	9	36	surface	strip	171,117	180	rail	171,117		21	18	Bt-977	
		Flushing	9	36	surface	strip	218,102	184	rail truck Total	198,238 19,864 218,102		59	19	Bt-1099	
	Joyce Coal Co. Krulock, Inc.	Crescent Coleman Pit	8, 9 9	40	surface surface	strip strip	57,486 6,106	87 12	truck rail truck Total	57,486 4,323 1,783 6,106		4 4	2	Bt-980 Bt-1130	
		Marietta Coal Co.	Negus-Berry	11 12 27	31	surface	strip	17,757	31	truck	17,757		29	28	Bt-824
	Seabright-Bigley		11 12 25	30	surface	strip	41,794	98	truck	41,794					Bt-1105
	Nicholson-Marcinko et al.		9 37	37	surface	strip	11,583	44	truck	11,583					Bt-1108
	Sikole-Ludwig		11 58	58	surface	strip	6,461	8	truck	6,461					Bt-1133
	Ayers	12 50	50	surface	strip	12,091	17	truck	12,091					Bt-905	
	Oliver	11 33	33	surface	strip auger Total	6,645 1,781 8,426	14	truck	8,426					Bt-MAR ^s	
	Shedeker-Consol et al.	Richland, Smith	11	36	surface	strip auger Total	75,415 16,722 92,137	141	truck	92,137					Bt-865
Richland		11	36	surface	strip auger Total	28,078 4,600 32,678	43	truck	32,678					Bt-1104	
Nacco Mining Co.	Erick-Mick	Richland	11	45	surface	strip auger Total	54,208 1,223 55,431	82	truck	55,431					Bt-1107
		Richland Smith	9 11	38 40	surface surface	strip strip auger Total	4,256 58,043 14,813 72,856	6 110	truck truck	4,256 72,856					Bt-1132 Bt-147M ⁶
	Consol	Union	8	51	surface	strip auger Total	68,662 5,715 74,377	94	truck	74,377					Bt-1109
		Powhatan #6	8	62	slope	cont. miner Total	1,216,157 74,377 1,290,534	239	rail truck other Total	1,239,760 3 11 1,239,774	251		104	Bt-68	
	Ohio Coal & Construction Corp.	Pease	Pease	12 12 60	60	surface	strip	118,119	233	truck	118,119		9	3	Bt-91
			Pease	12 60	60	surface	strip	4,470	62	truck	4,470		1	7	Bt-1094
			Pease	12 60	60	surface	strip	53,645	150	truck	53,645		4	1	Bt-1101
			Pease	12 60	60	surface	strip	8,667	87	truck	8,667		1	3	Bt-1126
			Richland	9 48	48	surface	strip	26,358	197	truck	26,358		8	3	Bt-99
			Richland	11 36	36	surface	strip	15,265	152	truck	15,265		2	2	Bt-1100
Richland		Richland	12 60	60	surface	strip	114,882	257	truck	114,882		14	4	Bt-1111	
		Richland	12 60	60	surface	strip	43,085	104	truck	43,085		16	3	Bt-1125	
		Colerain	11 50	50	surface	strip	77,452	149	truck	77,452		5	1	Bt-992	
		Union	12 48	48	surface	strip	22,015	58	truck	22,015		3	1	Bt-137	
Ohio River Collieries, Inc.	Schell Pit	9 28	28	surface	strip	6,523	42	truck	6,523		2	1	Bt-957		
	Union	9 42	42	surface	strip	53,449	97	truck	53,449		5	1	Bt-1074		
	Saffell Pit	11 28	28	surface	strip	5,336	21	truck	5,336		1	1	Bt-1102		
	Polen	11 32	32	surface	strip	24,047	64	water truck Total	21,378 7,511 28,889		16	3	Bt-P ⁶		

Cain Gregg	Goshen	11 12	35 30	surface	strip auger Total	105,837 11,275 117,112	250	water truck Total	96,319 25,752 122,071	17	3	Bt-127
Hollingsworth	Goshen	11 12	30 26	surface	strip auger Total	176,430 4,765 181,195	250	water truck Total	149,299 39,911 189,210	26	5	Bt-153
Collins	Goshen	11	24	surface	strip auger Total	54,512 4,687 59,199	250	water truck conveyor Total	35,695 21,752 4,631 62,078	8	2	Bt-1097
Cross	Goshen	11		surface	strip	7,428	21	water truck Total	6,603 2,320 8,923	15	1	Bt-C ⁵
Shephard	Goshen, Smith	11	26	surface	strip	126,212	250	water truck Total	103,718 27,306 131,024	18	3	Bt-1103
Phillips	Kirkwood, Warren	9 11	20 24	surface	strip auger Total	394,742 16,571 411,313	230	water truck conveyor Total	255,287 140,646 29,318 429,251	58	11	Bt-984
Cheslock	Kirkwood	9		surface	strip auger Total	33,901 5,314 39,215	188	water truck conveyor Total	13,535 23,285 7,023 43,843	6	2	Bt-1112
Newlin-Sproul	Richland	11	42	surface	strip auger Total	236,215 18,000 254,215	254	water truck Total	208,542 54,819 263,361	36	7	Bt-149
Loy-McFarland	Richland	11	36	surface	strip	103,031	207	water truck Total	84,519 22,331 106,850	12	3	Bt-1095
Smith-Briggs	Somerset	11	24	surface	strip auger Total	104,896 1,762 106,648	250	water truck Total	87,880 23,406 111,286	15	3	Bt-1116
Black Oak	Union, Wheeling	9	48	surface	strip auger Total	101,518 1,939 103,457	250	water truck Total	84,627 21,671 106,298	13	4	Bt-1098
Burson	Warren	9		surface	strip auger Total	17,829 9,739 27,568	182	water truck Total	23,503 7,272 30,775	3	1	Bt-1117
Saginaw Mine	Richland	8	60	slope	cont. miner	303,235	187	rail truck Total	314,622 124 314,746	41		Bt-643
Whitsell #1 Strip	Kirkwood	8	30	surface	strip	2,691	56	truck	2,691			Bt-1128
CARROLL COUNTY — Total production = 707,371 tons												
Blum Coal Co. Industrial Mining Co.	Washington Brown	7 6 6A	26 36	surface surface	strip strip auger Total	63 165,844 725 166,569	8 298	truck truck	63 166,569	1 17	3	Cl-231 Cl-223
Jones	Brown	5 6 7	30 30	surface	strip auger Total	259,043 16,312 275,355	294	truck	275,355	19		Cl-225
R & R James Bros. Coal Co. James Bros. Coal Co.	East Rose Rose	7 6 5 6	36 42 22 42	surface surface surface	strip strip strip Total	22,159 57,935 70,479	156 238	truck truck truck	22,159 57,935 70,479	2 23	5	Cl-220 Cl-17 Cl-162

⁴Employment reported for Bt-82 is a summary of employment for all Marietta Coal Co. operations.

⁵No mine number has been assigned by the Division of Mines.

⁶This mine number has been duplicated for another company.

⁷Averages fewer than one employee per month.

1985 OHIO DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS, BY COUNTY—Continued

Name of operator	Name of mine	Township	Seam	Thick-ness (inches)	Type of mine	Method of production	Tonnage produced in 1985	Days in operation in 1985	Disposition		Employment		State mine number	
									Method	Tonnage	Production			Non-produc-tion
											Under-ground	Sur-face		
CARROLL COUNTY (continued)														
Mac Mining Co. Midway Coal, Inc. Puskarich Limestone Co.	CAM #2	Lee	H	18	surface	strip	20,076	191	truck	20,076	5	Cl-207		
	CAM #4	Lee	H		surface	strip	6,070	64	truck	6,070	6	Cl-230		
	CAM #3	Lee	H		surface	strip	10,174	191	truck	10,174	3	Cl-226		
	Midway Coal, Inc.	Brown	6	29	surface	strip	1,647	31	truck	1,647	2	Cl-222		
	Puskarich Limestone Co.	Lee	H, 8		surface	strip	24,123	118	rail	5,824	3	Cl-183		
						truck	18,299		Total	24,123				
Regal Mining, Inc.	Blum-Noble	Lee	H	19	surface	strip	27,627	106	truck	27,627	7	Cl-216		
	WWH	Lee	H	19	surface	strip	25,094	76	truck	25,094	5	Cl-227		
COLUMBIANA COUNTY — Total production = 615,515 tons														
Blum Coal Co.	Guilford Lake	Center	6	17	surface	strip	45,411	277	truck	45,411	4	Ca B ^a		
Buckeye Coal Mining Co., Inc.	Boyd Pit	Yellow Creek	7	20	surface	strip	30,665	115	truck	30,665	9	Ca-912		
C & E Coal Co.	C & E #2	Center	6		surface	strip	13,668	34	truck	23,292	9	Ca-921		
						auger	9,624		truck					
						Total	23,292							
C & W Mining Co., Inc.	C & W Pit	Elkrun	6	36	surface	strip	274	4	truck	274		Ca-875		
Coalbrook Mining Co.	Toth Strip	Franklin	6	21	surface	strip	16,917	178	truck	16,917		Ca-765		
Commercial Minerals, Inc.	Dunham	Hanover	6	24	surface	strip	16,327	51	truck	16,327	4	Ca-829		
	West Point	Madison	6	40	surface	strip	72,485	182	truck	72,485	8	Ca-919		
			7	24	surface	strip			truck					
Crawford Coal Co.	Crawford Coal Co.	Elkrun	6	28	surface	strip	20,706	197	truck	20,706	8	Ca-827		
D & D Mining Co.	Lyons	Middleton	4	30	surface	strip	10,234	212	truck	10,234	2	Ca-891D ¹⁰		
	Jack Foster	Unity	4	30	surface	strip	3,696	142	truck	3,696	1	Ca-872		
	John Foster	Unity	4	30	surface	strip	21,110	299	truck	21,110	8	Ca-885		
	Dickson	Unity	4	30	surface	strip	29,573	296	truck	29,573	8	Ca-888		
East Fairfield Coal Co.	"W" Mine	Fairfield	7	25	surface	strip	98,190	171	truck	110,410	16	Ca-894		
						auger	1,180		truck					
						Total	99,370							
Hanover Coal Co.	"F" Mine	Salem	7	25	surface	strip	1,692	7	truck	1,692	2	Ca-344		
Hudson Road Mining Co.	Burchfield Strip #3	Franklin	7	20	surface	strip	4,467	64	truck	4,467	3	Ca-339		
Industrial Mining Co.	Hudson Road Mining Co.	Middleton	6	34	surface	strip	914	5	truck	914	2	Ca-917		
Jeffco Sales & Mining Co.	Traves	Wayne	6	30	surface	strip	14,530	73	truck	14,530	2	Ca-909		
	McCormicks Run	Madison	6A	30	surface	strip	6,660	22	truck	22,842	5	Ca-895		
						auger	16,182							
						Total	22,842							
Johnson Mining Co.	Johnson Mining	Madison	5, 6		surface	strip	26,271	187	truck	26,271	7	Ca-922		
K & R Enterprises, Inc.	Johnson Mining	St. Clair	6A, 7	36	surface	strip	8,413	64	truck	8,413	4	Ca-893		
	R-3	Center, Franklin, Wayne	6		surface	strip	12,933	66	truck	12,933	2	Ca-836		
K D Coal Co., Inc.	Baker Mine	Fairfield	7	19	surface	strip	13,255	307	truck	13,255	3	Ca-343		
Lishon Coal Crushers, Inc.	Lishon Coal Crushers, Inc.	Center	7	44	surface	strip	12,696	132	truck	12,796	5	Ca-896		
	Gaydos	Unity	7	38	surface	strip	7,830		truck	7,830		Ca-906		
M & S Coal Co., Inc.	Todd	Elkrun	6	28	surface	strip	30,776	151	truck	30,776	12	Ca-MS*		
Magnum Coal, Inc.	Magnum Coal, Inc.	Madison	6	26	surface	strip	23,703	159	truck	23,703	12	Ca-863		
		Elkrun, Madison	6	34	surface	strip	774	16	truck	4,947	1	Ca-891M ¹⁰		
						auger	4,173							
						Total	4,947							
Mansfield Hawk Mining, Inc.	Birchfield Strip #4	Franklin	7	26	surface	strip	15,786	64	truck	15,786	10	Ca-931		
McCourt Mining	McCourt Mining	Washington	6A	32	surface	strip	1,431	60	truck	1,431		Ca-908		
Ted Mesmer & Sons	Humeniak-Dungannon	Hanover	7	26	surface	strip	4,634	231	truck	4,634	2	Ca-854		
P & J Mining Co.	P & J Mining Co.	Hanover	7		surface	strip	8,824	10	truck	8,824	2	Ca-926		
Plate Coal Co.	Plate #2	Madison	6		drift	cont. miner	6,633		truck	6,633		Ca-714		
Robinson & Sons Mining	Robinson Mine	Center	7	44	surface	strip	2,578	5	truck	2,878	1	Ca-918		
COSHOCTON COUNTY — Total production = 1,383,651 tons														
Cravat Coal Co.	Coshocton	Franklin, Tuscarawas	6		surface	strip	18,814	71	rail	12,540	3	Cn-766		
						auger	18,994		truck	25,268				
						Total	37,808		Total	37,808				
G & M Mineral Co.	G & M Mineral Co.	Bethlehem	5	32	surface	strip	49,363	264	truck	49,363	12	Cn-757		
Ohio Amco, Inc.	Simco	Linton	6		surface	strip	34,747	33	truck	34,747	3	Cn-794		

R & F Coal Co.	Wilkinson	Adams	6	30	surface	strip	20,034	42	water truck	6,985	2	2	Cn-802
	Adams-Hamilton	Keene	5, 6		surface	strip	94,858	166	Total	12,839	17	3	Cn-812
									19,824				
	Roahrig	Linton	5	17	surface	strip	72,836	208	water truck	60,027	9	2	Cn-803
									26	41,284			
	Frye Ross-Isletta	Linton Linton, Oxford	5, 6	6	surface	strip	40,938	144	Total	101,311	9	1	Cn-807 ¹¹ Cn-811
									6	25,066			
	Courtwright	Oxford	5, 6		surface	strip	82,996		water truck	13,955			Cn-768 ¹¹
									60,478				
	Bartolec	Oxford	5, 6		surface	strip	39,434		Total	74,433			Cn-779 ¹¹
900													
R & R Minerals, Inc. Green & Burnett Coal Co. Schlabach Coal Co. Simco-Peabody	Wontz R & R Minerals, Inc. Schlabach-Noble Simco-Peabody Pit	Oxford Clark Lafayette Franklin	5, 6	24	surface	strip	17,538	64	water truck	16,647	8	2	Cn-814
									194				
	Frye	Lafayette, Linton	5	30	surface	strip	10,670	22	water truck	13,822	8	5	Cn-776
									218				
	Courtwright	Oxford	5	30	surface	strip	15,137	27	water truck	809,330	2	9	Cn-807 ¹²
									2				
	Bartolec	Oxford	5	24	surface	strip	18,718	33	water truck	15,137	3	9	Cn-768 ¹²
									4				
	Ungurean	Tuscarawas	6	41	surface	strip	8,006	14	water truck	18,718	4	1	Cn-779 ¹²
									2				
GALLIA COUNTY — Total production = 430,624 tons													
L & M Coal Co. R & F Coal Co.	Crown City Mining, Inc. Green & Burnett Coal Co. Kymcoal, Inc. Merco Strip #2	Guyan Huntington Huntington Huntington	8A 6 6 6	34 54	surface surface drift surface	strip strip cont. miner strip	214,559 51,756 40,023 124,286	134 247 95 118	water truck	205,518	48	14	Ga-220 ¹³
									5				
	L & M Mine Farrell-Moore	Jackson Millwood	7 8 9	72 42 12	surface surface	strip strip auger	5,290 147,454 26,107	146 199	water truck	139,608	2	5	Gy-303 Gy-279
									32,925				
	Watson	Millwood	8, 9		surface	strip	23,627	60	Total	172,533	2	9	Gy-W ⁹
									3,146				
	Hart	Wheeling	5	29	surface	strip	143,254	289	water truck	94,017	22	5	Gy-300
									30	70,599			
	R V G, Inc. Thompson Mining Co.	Jackson Jackson	7	42	surface	strip	59,853	94	Total	164,616	6	1	Gy-301R ¹⁰ Gy-301T ¹⁰
									33	8,219			
HARRISON COUNTY — Total production = 3,111,377 tons													
C K & K, Inc.	Monroe	7	40	surface	strip	42,073	259	water truck	52,756	5	3	Hn-208	
								10,683					
Consolidation Coal Co.	Franklin #125	8	62	shaft	longwall cont. miner	513,795 99,408	170	water truck	613,203	49	23	Hn-203 ¹⁴	
								613,203					

⁹No mine number has been assigned by the Division of Mines.

¹⁰Averages fewer than one employee per month.

¹¹This mine number has been duplicated for another company.

¹²R & F Coal Co. operated this mine from June to December; see also Wills Creek Energy Co.

¹³Wills Creek Energy Co. operated this mine from January to May; see also R & F Coal Co.

¹⁴See also Lawrence County

¹⁵See also Belmont County.

⁹No mine number has been assigned by the Division of Mines.

¹⁰Averages fewer than one employee per month.

¹¹This mine number has been duplicated for another company.

¹²R & F Coal Co. operated this mine from June to December; see also Wills Creek Energy Co.

¹³Wills Creek Energy Co. operated this mine from January to May; see also R & F Coal Co.

¹⁴See also Lawrence County

¹⁵See also Belmont County.

Name of operator	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1985	Days in operation in 1985	Disposition		Employment			State mine number
									Method	Tonnage	Under- ground	Production	Sur- face	
HARRISON COUNTY (continued)	Consolidation Coal Co. (con't)	Athens, Short Creek	8 8A 9	52 28 42	surface	strip auger	89,197 12,639	64	truck	101,836	13	7	Hn-700 ¹⁶	
						Total	101,836							
	Oak Park #107	Cadiz	6A	60	shaft	longwall cont. miner	480,038 231,746	166	truck conveyor	87,089 624,685	135	45	Hn-658	
						Total	711,784							
	Gilmore Ridge Extension	Archer	8 8A	53 14	surface	strip auger	75,099 17,828	229	water truck	76,261 19,928	13	2	Hn-204	
						Total	92,922							
	Strauss	Archer	8 8A 9	55 12	surface	strip	71,898	250	water truck	59,599 16,181	10	2	Hn-207	
						Total	75,780							
	County Home Gilmore Ridge	Archer, Cadiz	8	42	surface	strip auger	43,045 15,742	106	water truck	47,161 11,062	9	2	Hn-731	
						Total	58,223							
	Jewett-Sportsman	Archer	8 8A	45 12	surface	strip	62,733	209	water truck	50,611 12,157	8	2	Hn-735	
						Total	62,768							
	Croskey	Green	8 8A	54 18	surface	strip	61,884	250	water truck	51,424 14,371	8	3	Hn-216	
						Total	65,795							
	Lamborn	Green	8, 8A		surface	strip	48,817	250	water truck	37,510 9,952	6	1	Hn-218	
						Total	47,462							
Mihelios Pruneski	Short Creek	8 8A 9	60 34	surface	strip auger	163,183 4,019	250	water truck	137,193 36,189	23	4	Hn-739		
					Total	167,202								
Penova-Meyers	Short Creek	8 8A	52 20	surface	strip auger	56,688 4,532	250	water truck	50,493 14,278	8	2	Hn-746		
					Total	64,771								
Matusik	Short Creek	8, 8A		surface	strip	20,014	64	water truck	17,792 6,251	10	2	Hn-M ¹⁶		
					Total	24,043								
Rinks	Short Creek	9		surface	strip auger	18,658 1,397	124	water truck	16,836 5,000	6	2	Hn-R ¹⁶		
					Total	20,055								
T P Mining, Inc.	Monroe Strip	7	42	surface	strip auger	48,444 3,326	234	truck	51,770	6	3	Hn-210		
					Total	51,770								
Triad Mining, Inc.	Clark	7	48	surface	strip auger	1,168 1,045	21	truck	2,213	1	2	Hn-209		
					Total	2,213								
Varkony Mining	Varkony Mining	Green	8, 8A	surface	strip	24,700		truck conveyor	20,597 4,103			Hn-217		
					Total	24,700								
W. B. Coal Co. Y & O Coal Co.	Ann Strip 1A Ann Strip Nelms #2	German German Green	H H 6A 7	22 56 60	surface shaft	strip strip cont. miner	122,398 74,332 690,853	276 286 231	truck truck rail truck	122,398 366,567 334,961	16 13	3 4 47	Hn-211 Hn-684 Hn-169	
						Total	701,528							

HOCKING COUNTY — Total production = 214,393 tons									
Nutter Bros. Coal Co., Inc.	Green	5	18	surface	strip	1,976	126	truck	1,976
Quality Coal Co.	Starr	6A	28	surface	strip	68,087	58	truck	68,087
Valley Coal Co.	Starr	6, 6A		surface	strip	48,181	93	water	48,181
	Darnac	6, 6A		surface	strip	99,149		water	99,149
HOLMES COUNTY — Total production = 327,133 tons									
Holmes Limestone Co.	Clark	5	30	surface	strip	254,659	306	truck	254,659
	Hardy	6	30	surface	strip	10,469	306	truck	10,469
	241 Plant	3	18	surface	strip	33,008	306	truck	33,008
Miller Mining Co.	Wayne Mine	4	26	surface	strip	10,480	129	truck	10,480
Rodco, Inc.	Miller Creek	5	30	surface	strip	11,927	95	truck	11,927
	Prairie	3	28	surface	strip	6,590		truck	6,590
	Richland	4		surface	strip				
JACKSON COUNTY — Total production = 1,175,310 tons									
B & D Coal Co., Inc.	Milton	3	24	surface	strip	30,590	128	truck	30,590
D & J Energy, Inc.	Bloomfield	4	30	surface	strip	31,488	221	truck	31,488
		4A	36	surface	strip			conveyor	10,119
								Total	31,488
Elk Coal Co., Inc.	Milton	5	30	surface	strip	49,999	292	truck	49,999
LaMay Coal Co., Inc.	Bloomfield	6	25	surface	strip	6,465	14	truck	6,465
	Bloomfield	5	30	surface	strip	121,737	166	truck	121,737
		4A	54	drift	cont. miner	146,809	240	truck	146,809
Milton Mining Co.	Milton	4	28	surface	strip	91,731	77	truck	91,731
Quality Coal Co.	Broken Arrow	5	28	surface	strip	108,563	186	water	27,962
Royal Oaks Industries, Inc.	Liberty	1	28	surface	strip			truck	80,601
								Total	108,563
Sands Hill Coal Co., Inc.	Lick	1	24	surface	strip	10,897	256	truck	10,897
	Milton	4A	36	surface	strip	144,114		water	15,072
		5	30					truck	129,042
		6	15					Total	144,114
		6A							
Stewart Coal Co.	Jackson	1	24	surface	strip	42,223	259	truck	42,223
Watson Coal Co., Inc.	Milton	5	28	surface	strip	11,689	106	truck	8,402
Watertoo Coal Co.	Bloomfield, Madison	4A	48	surface	strip	378,995	261	rail	876
		5	34					truck	378,119
		6	12					Total	378,995
JEFFERSON COUNTY — Total production = 1,933,602 tons									
Anthony Mining Co., Inc.	Knox, Saline	8	48	surface	strip	84,556		truck	84,556
Boich Mining Co.	Wayne	8	48	surface	strip	118,873	250	truck	118,873
D & L Contractors, Inc.	Cross Creek	8	56	surface	strip	248,331	161	truck	248,331
	Smithfield	8A	56	surface	strip	82,311	249	truck	82,311
F & M Coal Co.	Wayne	8	18	surface	strip	28,453		truck	28,453
Industrial Mining Co.		8A	54	surface	strip				
	Starn	8A	22	surface	strip	40,004	130	truck	40,004
		6	36	surface	auger	1,471		truck	41,475
					Total	41,475			
Jefferson Holding, Inc.	Springfield	6A	52	surface	strip	1,183	23	truck	1,183
Maxkra Minerals	Knox	8	10	surface	strip	51,129	76	truck	51,129
Ohio Coal & Construction Corp.	Warren	8A	36	surface	strip	88,378	131	truck	88,378
	Warren	11	36	surface	strip	17,723	62	truck	17,723
	No. 38 Strip	11	60	surface	strip	229,535	257	truck	229,535
	No. 36 Strip	8	24	surface	strip				
	No. 30	8A	36	surface	strip	12,662	67	truck	12,662
Ohio Edison Co.	Wells	11	36	surface	strip	38,936	163	truck	38,936
Ohio Edison Co. Strip Mine	Knox	8	48	surface	strip	52,734	177	truck	52,734
Ohio Edison Co. Strip Mine	Knox	8	26	surface	strip	114,357	250	water	93,091
R & F Coal Co.	Mount Pleasant	11	30	surface	strip			truck	23,654
								Total	116,745

¹⁰See also Belmont County.

¹¹No mine number has been assigned by the Division of Mines.

¹²See also Wayne County.

¹³Averages fewer than one employee per month.

1985 OHIO DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS, BY COUNTY—Continued

Name of operator	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1985	Days in operation in 1985	Disposition		Employment			State mine number
									Method	Tonnage	Production	Non- produc- tion		
													Under- ground	
JEFFERSON COUNTY (continued)														
R & F Coal Co. (cont)	Varkony Kross	Wayne	8 8A 9	50 22 15	surface	strip	150,026	250	water truck Total	123,149 32,106 155,255		22	3	Jfn-720
	Puskariich	Wayne	8 8A	17 44	surface	strip	23,066	166	water truck Total	19,285 5,601 24,886		4	2	Jfn-719
S & D Construction Corp.	Rankin Mine #4	Knox	8	48	surface	strip auger Total	10,346 4,941 15,287	30	truck	15,287		6	1	Jfn-797
	Rankin Mine #3	Knox	8	48	surface	strip auger Total	9,870 3,158 13,028	63	truck	13,028		7	2	Jfn 1294
Schiappa Coal Co. Valley Mining, Inc.	No. 43 Strip Smith Mine Strip #3	Island Creek Smithfield Smithfield	8 8 8A	48 40 48 20	surface surface surface	strip strip strip auger Total	191,806 8,383 74,491 1,950 76,441	246 168	truck truck water truck Total	146,287 6,284 12,214 64,227 76,441		32 5	7 3	Jfn-673 Jfn-795 Jfn-785
	Weirton Construction Co. Zimnox Mining Co.	Wells Wells	8 8	54 50	surface surface	strip strip	187,742 57,187	247 100	truck truck	194,944 57,187		33 10	3 8	Jfn-687 Jfn-703
LAWRENCE COUNTY — Total production = 374,984 tons														
Belville Mining Co., Inc.	Brady Creek #1	Washington	4A 5	36 24	surface	strip	103,613	194	water truck Total	67,028 34,697 101,871		23	1	Le-432
Chisholm & Associates Crown City Mining, Inc.	Virginia Queen Crown City Mine	Washington Mason	5 8A	24 34	surface surface	strip strip	48,056 223,315	100 124	truck water	48,056 214,021		13 48	3 3	Le-438 Ga-220 ²⁰
MAHONING COUNTY — Total production = 284,156 tons														
Cardinal Mining, Inc. East Fairfield Coal Co.	Cardinal Strip "K" Mine	Green Springfield	3 4 5 6	28 32 32 16	surface surface	strip strip auger Total	42,263 76,772 10,874 87,646	317 166	truck truck	42,263 99,651		6 20	4 2	Mg-624 Mg-603
	"C" Mine "HP" Mine	Springfield Springfield	6 4 5	16 20 20	surface surface	strip strip auger Total	7,537 3,603 15,807 19,410	12 45	truck truck	6,459 18,212		2 12	1	Mg C ¹⁹ Mg-HP ¹⁹
Ted Mesmer & Sons SME Bessemer Cement, Inc. Thompson Bros. Mining Co.	V Pts. Mine Pinelake Budry Peres Mine	Beaver Goshen Poland Beaver	5 5 4 4	48 34 18 30	surface surface surface surface	strip strip strip strip	12,167 22,095 8,965 84,075	313 7 63 310	truck truck truck truck	12,167 22,095 8,965 84,075		2 3 34 12	3 1 2 1	Mg-59 Mg-625 Mg-608 Mg-65
MEIGS COUNTY — Total production = 4,015,480 tons														
Markel Mining, Inc. Southern Ohio Coal Co.	Markel Mining, Inc. Meigs Mine #2	Salisbury Columbia	8 4A	57	surface shaft	strip longwall cont. miner Total	4,749 1,857,342 931,771 2,789,113	59 239	truck conveyor	4,749 2,928,497	451	22	155	Ms-306 Ms-294
	Meigs Mine #1	Salem	4A	57	shaft	cont. miner	1,221,618	239	conveyor	1,271,272	274		381	Ms-293
MONROE COUNTY — Total production = 3,194,227 tons														
Quarto Mining Co.	Powhatan #4	Salem	8	59	shaft	longwall cont. miner Total	2,133,438 1,060,789 3,194,227	241	water	3,184,940	736		277	Me-4

MUSKINGUM COUNTY — Total production = 2,091,579 tons									
Central Ohio Coal Co.	Muskingum Mine	Meigs	9	43	surface	strip auger Total	986,585 86,084 1,072,669	118	1,072,659 10 1,072,669
Cravat Coal Co.	Bloomfield	Highland	A	36	surface	strip	13,234	28	11,990 1,244 13,234
	Loase-Patton	Rich Hill, Union	8	38	surface	strip auger Total	38,458 4,378 42,836	187	5,209 37,627 42,836
	Rix Mills	Rich Hill, Union	8	38	surface	strip auger Total	115,386 4,347 119,733	153	31,706 88,027 119,733
	Rix Mills	Rich Hill, Union	8		surface	strip	4,628	13	328 4,300 4,628
Dolan Excavating King Quarries, Inc.	Dolan Excavating King Strip King Strip King Strip	Washington Washington Wayne	7 6 6	36 36 36	surface surface surface	strip strip strip	1,495 12,486 17,725	44 37 50	1,495 12,486 17,725
Muskingum Mining, Inc. Sands Mining Corp.	Muskingum Mine Sands Mining Corp.	Wayne Madison Washington	6 6 6	33 33 35	surface surface surface	strip strip strip	5,437 670,659 130,677	14 243 272	5,436 658,313 130,677
NOBLE COUNTY — Total production = 3,370,809 tons									
B & N Coal, Inc.	Pipeline	Marion, Stock	9	30	surface	strip	33,149	50	33,149
Bennoc, Inc.	Sorg	Stock	9	30	surface	strip	161,190	140	161,190
	Quaker	Stock	9	30	surface	strip	91,661	76	91,661
		Wayne	9		surface	strip	16,403	36	13,075 3,328 16,403
Central Ohio Coal Co.	Sidwell-Muskingum	Brookfield	9	42	surface	strip auger Total	520,100 202,483 722,583	298	23 16,403 23
	Muskingum Mine	Brookfield, Noble, Sharon	9	41	surface	strip auger Total	2,182,590 116,399 2,298,989	123	26 2,298,963 2,298,989
R & F Coal Co.	Timmons	Beaver	8 9	45 40	surface surface	strip auger Total	30,941 3,297 34,178	106	27,246 6,392 33,638
	Flood-Cline	Beaver	9		surface	strip	12,656	41	11,251 3,954 15,205
PERRY COUNTY — Total production = 2,035,877 tons									
Crooksville Coal Co.	Crooksville Strip	Bearfield	5	30	surface	strip	227,676	288	308,188
Crooksville Coal Co. Strip-Tri-State- Coal Sales, Inc.	Crooksville Coal Co. Strip-Tri-State- Coal	Clayton, Harrison	6 5	42 40	surface surface	strip strip	82,484	203	82,484
Dennis Clay Co.	Cannon Mine	Harrison	6	36	surface	strip	5,440	15	5,440
Peabody Coal Co.	Sunnyhill #9 North	Bearfield	6	54	surface drift	strip cont. miner	715,552	255	684,216 51,583 715,799
	Sunnyhill #9 South	Pleasant	6	56	drift	cont. miner	874,707	254	811,953 63,057 875,010
Shawnee Coal Co.	Shawnee Coal Co.	Salt Lick	6	56	surface	strip	36,609	96	36,609

¹⁹No mine number has been assigned by the Division of Mines.

²⁰See also Gallia County.

²¹See also Noble County.

²²Averages fewer than one employee per month.

²³No sales reported.

²⁴See also Muskingum County.

²⁵This mine number has been duplicated for another company.

1985 OHIO DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS, BY COUNTY—Continued

Name of operator	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1985	Days in operation in 1985	Disposition		Employment			State mine number
									Method	Tonnage	Production		Non- produc- tion	
											Under- ground	Sur- face		
PERRY COUNTY (continued)														
Shawnee Coal Co. (cont) Star Mining Co., Inc.	Shawnee Coal Co.	Salt Lick	6	144	surface	strip	45,399	164	truck	45,399		9	1	Py-323
	Howdyshell	Salt Lick	7	50	surface	strip	19,906	118	truck	19,906		6	1	Py-326
		Jackson	6	36	surface	auger	2,244	260	truck	28,104		14		Py-321
STARK COUNTY — Total production = 639,460 tons														
Burning Hollow Coal Co. C M Mining, Inc. East Ohio Limestone Co. ENZ, Inc. Hillcrest Coal, Ltd.	Garaux	Osnaburg	6	34	surface	strip	48,526	356	truck	48,526		12	3	Sk-215
	C M Mine #1	Pike	6	40	surface	strip	5,209	28	truck	5,209		3	4	Sk-214
	East Ohio Limestone	Lake	4	40	surface	strip	6,793	48	truck	6,793		3	1	Sk-663
	Sickatoose Pit	Sandy	4	42	surface	strip	92,632	265	truck	92,632		11	3	Sk-208
	Hillcrest Coal	Osnaburg	6	34	surface	strip	1,002	70	truck	9,250		3		Sk-196
						auger	8,248							
Holmes Limestone Co. Horizon Coal Corp.	Hillcrest Coal	Osnaburg	5	20	surface	strip	8,320	72	truck	3,423				Sk-221
	Stanwood Pit	Tuscarawas	3A	34	surface	strip	69,932	256	truck	69,932		3	2	Sk-227
	Horizon Strip-Canton	Pike	4	24	surface	strip	73,373	151	truck	73,373		6	3	Sk-223
K & R Enterprises, Inc.	Horizon Strip East Sparta	Pike	6	28	surface	strip	70,980	178	truck	70,980		6	2	Sk-230
	Foltz	Osnaburg	5	38	surface	strip	179,752	182	truck	192,198		52	6	Sk-225
			6	34	surface	auger	12,446							
Kohl Industries Mansfield Hawk Mining, Inc. Statewide Landfill Co.	Black Hawk	Bethlehem, Pike	4	22	surface	strip	5,578	203	truck	5,578		3	1	Sk-217
	Mansfield Hawk Mining	Paris	5	20	surface	strip	56,197	256	truck	56,197		10	2	Sk-201
	Statewide Landfill	Canton	6	24	surface	strip	542		truck	542				Sk-219
TUSCARAWAS COUNTY — Total production = 1,731,749 tons														
Angel Valley Mining, Inc. Arapaho Mining, Inc.	Angel Valley Mining, Inc.	Bucks	5	38	surface	strip	9,893	60	truck	6,210		2	1	Ts-1955
	Arapaho Mining, Inc.	Fairfield	7	38	surface	strip	32,653	106	truck	32,653		7	1	Ts-1956
	Arapaho Mining, Inc.	Mill, Union	7	38	surface	strip	27,849	97	truck	30,336		6	2	Ts-1921
Arrow Head Energy, Inc.	Post Boy	Goshen	5	26	surface	strip	9,432	15	truck	9,432		3	4	Ts-1912
	Arrow Head Strip	Warwick	6	24	surface	strip	32,786	100	truck	32,786		8	3	Ts-1890
	Finner-Belden	Sugar Creek	4	41	surface	strip	8,952		truck	8,952				Ts-1646
Bluff Hill Coal Co.	Bluff Hill Coal Co.	Clay	5	30	surface	strip	17,403	49	truck	20,061		2		Ts-1949
			5	30	surface	strip	2,658							
			6	36	surface	auger	20,061							
Burning Hollow Coal Co. Daron Coal Co. Di Chiera Coal Co. Eberhart Coal, Inc.	Dennison Mine	Union	7	36	surface	strip	2,485	91	truck	2,485		2	1	Ts-1932
	Hastine	Sugar Creek	3B	26	surface	strip	137,817	294	truck	137,817		13	1	Ts-1924
	Di Chiera Coal Co.	Mill	7	44	surface	strip	4,648		truck	4,648		6	7	Ts-1959
	Eberhart #2 Hott Strip	Dover	5	30	surface	strip	25,905	271	truck	26,700				Ts-1526
			5A	36	surface	strip								
			6	36	surface	strip								
Eberhart #2 Hott Strip Eberhart #2 Hott Strip Eberhart #2 Hott Strip Eberhart #2 Hott Strip	Eberhart #2 Hott Strip	Dover	5	30	surface	strip	15,866	178	truck	16,327		4	3	Ts-1882
	Eberhart #2 Hott Strip	Fairfield	5A	36	surface	strip	48,903	271	truck	49,336		4	6	Ts-1919
	Eberhart #2 Hott Strip	Lawrence	6	36	surface	strip	47,036	271	truck	48,390		3	7	Ts-1620
Empire Coal Co.	Empire Coal Co.	Clay	6	60	surface	strip	25,131	346	truck	500,175		48	22	Ts-115
			5, 6		surface	strip	40,021							
							291,152							

GEX Hardy, Inc. Goshen Coal Co. Horizon Coal Corp.	Anco Strip Ragersville Wardell Strip Horizon Strip-Belden	Washington Auburn Goshen Sandy	6A	24	surface	strip	17,574	40	truck	17,574	23	3	Ts-1963
			5, 6	24	surface	strip	171,094	270	truck	171,094	23	11	Ts-1946
			5, 6	24	surface	strip	6,660	51	truck	6,660	2	2	Ts-1922
			5, 6	30	surface	strip	98,186	186	truck	98,186	7	2	Ts-1941
J & D Mining Co.	Horizon Strip Ladrach	Sandy	5, 6	28	surface	strip	29,418	58	truck	29,418	4	1	Ts-1962
			5, 6	30	surface	strip	45,785	254	truck	55,517	5	1	Ts-1936
			5, 6	30	surface	auger	9,732						
			6	40	Total	Total	55,517						
Kimble Coal Co.	Kimble Clay & Limestone	Sugar Creek	3A	25	surface	strip	85,125	203	truck	87,440	3	4	Ts-1727
			4	20	surface	auger	2,314						
			5	30	Total	Total	87,439						
			6	42	surface	strip	20,973						
L & M Minerals, Inc.	Evans Luikert Romig RMI #1	Mill Rush Mill Rush York	7	20	surface	strip	20,973						Ts-1884
			5	28	surface	strip	266						Ts-1914
			5	30	surface	strip	11,594						Ts-1930
			6	36	surface	strip	76,554	260	truck	11,594	9		Ts-1918
Red Malcuit, Inc.			5	30	surface	strip	16,924						
			6	36	surface	auger	16,924						
					Total	Total	92,479						
					surface	strip	69,099	255	truck	116,833	8	4	Ts-1947
Miller Mining Co. Mudsock Minerals, Inc.	Miller Mines Welling Pit	Wayne Goshen	5	36	surface	strip	32,725	124	truck	34,269	2	2	Ts-1943
			5	48	surface	auger	1,544						
			6		Total	Total	34,269						
					surface	strip	7,941	29	truck	7,941	3	3	Ts-1965
Puskarch Mining, Inc.	Sifty New Cumberland	York Warren	6	42	surface	strip	85,223	164	truck	44,614	7		Ts-1917
			6		surface	auger	24,479		water	5,115			
					Total	Total	109,702		truck	59,973			
					surface	strip	22,014	239	truck	109,702			
R & E Coal Co. R & F Coal Co.	R & E Coal Co. Aigyer Schupp	Jefferson Clay	6	37	surface	strip	47,260	106	truck	22,014	6	2	Ts-1925
			7	27	surface	strip	12,902		water	47,959	10	3	Ts-1945
					surface	auger	11,249		truck	11,249			
					Total	Total	60,162		Total	59,208			
Valley Mining, Inc.	Empire-White Heltter	Clay	6	36	surface	strip	9,164	80	truck	11,846	1	1	Ts-1933
					surface	auger	2,682						
					Total	Total	11,846						
					surface	strip	40,483	146	truck	59,309	7	2	Ts-1923
Burcher Empire-White		Rush	6	36	surface	strip	18,826						
					surface	auger	59,309						
					Total	Total	59,309						
					surface	strip	24,390	113	truck	28,028	3	1	Ts-1957
Putnam Pit		Rush	7	36	surface	strip	3,638						
					surface	auger	28,028						
					Total	Total	28,028						
					surface	strip	9,695	40					Ts-1964
Diehler Pit		Salem	6		surface	strip	1,274						
					surface	auger	10,969						
					Total	Total	10,969						
					surface	strip	1,187		truck	1,187	1	1	Ts-538
Zoar Mining Co. Zoar Mining Co.	Zoar Mining Co. Zoar Mining Co.	Sandy Sandy	4		surface	strip	8,098		truck	8,096	1		Ts-540
			4		surface	strip							
					surface	strip	51,731	145	truck	51,731	4	11	Vn-623
			3	24	surface	strip	44,561		truck	44,561	11	9	Vn-163
B & D Coal, Inc.	B & D Coal #1	Clinton	4, 5	30	surface	strip	12,062	116	truck	12,062	3		Vn-176
			3, 4		surface	strip	214,285	144	truck	214,285	19		Vn-655
			4	28	surface	strip							
			5	28	surface	strip							
Eberts Coal Co., Inc. Elk Coal Co. Quality Coal Co.	Quarry Mine Elk Strip Jaymar Pit	Elk Richland Clinton	6	28	surface	strip	24,424	136	water	6,373	3		Vn-173
			6	30	surface	strip			truck	18,051			
			3		Total	Total	24,424		Total	24,424			
					surface	strip	8,482	29	truck	8,482	8		Vn-177
R & S Coal Co.	R & S Strip	Clinton	4	36	surface	strip	127,268	212	truck	127,268	21	16	Vn-641
			W	40	surface	strip			water	10,052			
			4	40	surface	strip			truck	115,115			
			4A	36	surface	strip			Total	127,268			
S & K Coal Co., Inc. Sands Hill Coal Co., Inc.	S.K Strip Sands Hill Strip	Elk Clinton	5	28	surface	strip							
			6	20	surface	strip							
			6A	22	surface	strip							
			4A	57	drift	cont. miner	1,113,697	239	rail	1,130,510		175	Vn-652
Southern Ohio Coal Co.	Raccoon Mine #3	Wilkesville											

VINTON COUNTY — Total production = 1,596,510 tons

—No sales reported

1985 OHIO DIRECTORY OF REPORTING PRODUCING COAL-MINE OPERATORS, BY COUNTY—Continued

Name of operator	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1985	Days in operation in 1985	Disposition		Employment			State mine number
									Method	Tonnage	Under- ground	Production Sur- face	Non- produc- tion	
WASHINGTON COUNTY — Total production = 186,268 tons														
B & N Coal, Inc.	B & N Coal, Inc.	Aurelius	9	30	surface	strip	80,684	62	truck	80,684		8	17	Wh-51
	Shook	Aurelius	9	30	surface	strip	50,401	60	truck	50,401		7	17	Wh-1004
	Lincoln Pit	Aurelius	9	30	surface	strip	55,183	67	truck	55,183		4	19	Wh-1005
WAYNE COUNTY — Total production = 11,927 tons														
Rodco, Inc.	Rodco, Inc.	Franklin	3	30	surface	strip	11,927	99	truck	11,927		3		We-1927
			4	28										

*See also Holmes County.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
AFC Corp. 7 Court St. Canfield, OH 44406 216-533-2601	AFC Corp. (32)	Mahoning	clay	¹	Mg-594	IM-34
Paul Adams Coal Co. 46 Vaughn St. Jackson, OH 45640 614-286-1063	Adams Pit (20)	Jackson	clay	⁰²	Jkn-568	IM-825
Aggregate Services, Inc. 6025 Dixie Hwy. Suite 200 Fairfield, OH 45014 513-867-1454	Aggregate Services, Inc. (28)	Butler	sand & gravel	13,281	Br-36	IM-649
Alan Stone Co., Inc. P.O. Box 127 Chesterhill, OH 43728 614-554-6191	Alan Stone Co., Inc. (43)	Washington	sandstone	¹	Wn-45	IM-125
Alexandria Materials Co. P.O. Box 7 Alexandria, OH 43001 614-924-6611	Alexandria Pit (173)	Licking	sand & gravel	28,477	Lg-8	IM-271
Allied Corp. 1750 Highland Dr. Twinsburg, OH 44087 216-425-7861	Allied Corp. (316)	Stark	sand & gravel	³	Sk-173	IM-156
American Aggregates Corp. P.O. Drawer 160 Greenville, OH 45331 513-548-2111	Urbana #215 (48) Springfield #223 (16) Fairborn #413 (52) American Aggregates Corp. (78) Fort Jefferson #424 (19) Shawnee #225 (20) Blue Rock Limestone #222 (27) Marble Cliff #224 (30) Columbus #210 (95) Lockbourne #213 (96) Columbus Limestone #221 (31) Cedarville Limestone #423 (32) Xenia #414 (110) Newark #214 (174) American Aggregates Corp. (214) Phillipsburg Limestone #421 (70) Dayton Limestone #420 (71) Dayton South #412 (223) Rip Rap Road #416 (224) American Aggregates Corp. (94) Lytle Limestone #422 (125) Franklin #417 (349)	Champaign Clark Clark Darke Darke Delaware Fayette Franklin Franklin Franklin Franklin Greene Greene Licking Miami Montgomery Montgomery Montgomery Montgomery Preble Warren Warren	sand & gravel limestone sand & gravel sand & gravel limestone limestone limestone limestone sand & gravel sand & gravel limestone limestone limestone sand & gravel sand & gravel limestone limestone sand & gravel sand & gravel limestone limestone sand & gravel sand & gravel	166,355 82,148 280,810 280,810 168,172 356,613 192,794 1,193,013 1,096,854 291,457 976,954 140,285 392,217 248,238 ³ 186,646 215,621 ¹ 362,078 ³ ¹ 71,332	Cpn-1 Ck-1 Ck-13 Dke-1 Dke-1 Del-4 Fe-2 Fn-2 Fn-6 Fn-23 Fn-53 Ge-17 Ge-33 Lg-2 Mi-AAC ⁴ My-1 My-23 My-33 My-66 Pre-AAC ⁴ Wan-35 Wan-38	IM-371 IM-373 IM-366 IM-363 IM-362 IM-262 IM-169 IM-261 IM-185 IM-183 IM-185 IM-435 IM-379 IM-184 IM-658 IM-374 IM-368 IM-361 IM-677 IM-779 IM-112 IM-615
American Materials Corp. P.O. Drawer 160 Greenville, OH 45331 513-548-2111	Hamilton #710 (29) Fairfield #711 (30) Harrison #712 (118) Kilby Rd. #713 (119)	Butler Butler Hamilton Hamilton	sand & gravel sand & gravel sand & gravel sand & gravel	281,040 466,146 231,556 196,629	Br-5 Br-35 Hmn-37 Hmn-AMC ⁴	IM-153 IM-200 IM-170 IM-716
American Olean Tile Co., Inc. Lewisport, KY 42351 502-295-3411	Jeffery's Mine (24)	Lawrence	clay	11,550	Le-440	IM-828
Amert Gravel Co. 4843 County Hwy. 43 Rte. 4 Upper Sandusky, OH 43351 419-927-2366	Amert Gravel Co. (379)	Wyandot	sand & gravel	32,144	Wt-4	IM-520
Apache Aggregate & Paving Co. 46626 County Rte. 495 Coshocton, OH 43812 614-622-5904	Apache Aggregate & Paving Co. (69) Apache Aggregate & Paving Co. (70)	Coshocton Coshocton	sand & gravel sand & gravel	³ 86,539	Cn-718 Cn-783	IM-227 IM-717
Armco, Inc. 1750 W. Statler Rd. Piqua, OH 45356 513-773-4824	Piqua Minerals (64)	Miami	limestone	377,462	Mi-1	IM-382
Ashcraft Sand & Gravel 5840 Dryfork Rd. Cleves, OH 45002 513-367-2177	Ashcraft Sand & Gravel (120)	Hamilton	sand & gravel	41,565	Hmn-54	IM-710

¹No sales or production.²Production only, no sales.³No report filed in 1985.⁴No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Athens Building Materials Co., Inc. 250 N. Columbus Rd. P.O. Box N Athens, OH 45701 614-592-2088	Kimberly Pit (18)	Athens	sand & gravel	7,972	As-1117	IM-369
Ayers Limestone Quarry, Inc. 2000 Colerain Pike P.O. Box 67 Martins Ferry, OH 43955 614-633-2958	Ayers Limestone Quarry (12)	Belmont	limestone	98,139	Bt-716	IM-1
Baker Sand, Inc. 9857 Friendsville Rd. Burbank, OH 44214 216-948-1448	Baker Sand, Inc. (202) Baker Sand, Inc. (203)	Medina Medina	sand & gravel sand & gravel	95,146 449,047	Ma-4 Ma-20	IM-442 IM-426, IM-448
Barrett Paving Materials, Inc. 9570 State Rte. 128 Harrison, OH 45030 513-738-1201	Barrett Paving Materials, Inc. (121)	Hamilton	sand & gravel	334,036	Hmn-44	IM-120
Basic Refractories Combustion Engineering P.O. Box 600 Bettsville, OH 44815 419-986-5111	Maple Grove Works (106)	Seneca	limestone	⁵	Sa-2	IM-352
Beaver Creek Sand & Gravel, Inc. 7219 Salem Unity Rd. Salem, OH 44460 216-337-3534	Beaver Creek Sand & Gravel, Inc. (64) (3)	Columbiana	sand & gravel sandstone	35,561 35,992	Ca-855	IM-109, IM-891
Beaver Excavating, Inc. 4650 Southway SW P.O. Box 6412 Canton, OH 44706 216-478-2151	Stone Products, Inc. (317)	Stark	sand & gravel	9,919	Sk-190	IM-839
Beck Sand & Gravel, Inc. 2820 Webb Rd. Ravenna, OH 44266 216-626-3863	Beck Sand & Gravel, Inc. (256)	Portage	sand & gravel	199,294	Pe-50	IM-96
Becky Lane Trucking, Inc. 441 Iowa St. Ashland, KY 41101 606-325-8301	Becky Lane Sand (167)	Lawrence	sand & gravel	61,029	Le-430	IM-844
Belden Brick Co. P.O. Box 910 Canton, OH 44701 216-852-2424	Moomaw Pit (32) (56) (56) Finzer-Belden (116) (57) (57) Wallick Pit (58) (58) Shanesville Pit (59) (59) Beagle Pit (60)	Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas	sandstone clay shale limestone clay shale clay shale clay shale clay	⁵ 27,973 39,109 ⁵ 67,878 147,312 80,634 23,950 30,135 32,504 2,318	Ts-1517 Ts-1646 Ts-1841 Ts-1939 Ts-1960	IM-46 IM-44 IM-45 IM-47 IM-48
Bellbrook Gravel Co. P.O. Box 440 Tipp City, OH 45371 513-667-4431	Bellbrook Gravel Co. (350)	Warren	sand & gravel	343,938	Wan-24	IM-437
Belu & Son Paving, Inc. 4900 French Creek Rd. Lorain, OH 44054 216-277-7087	Belu Sand Pit (191)	Lorain	sand & gravel	5,098	Ln-12	IM-731
Belville Mining Co. P.O. Box 309 Wheelersburg, OH 45694 614-574-8464	Belville Mining Co. (25) (25)	Lawrence	clay shale	⁶ ⁶	Le-403	IM-738
Walter C. Best, Inc. 11830 Ravenna Rd. P.O. Box 87 Chardon, OH 44024 216-946-3441	Best Sand Corp. (17)	Geauga	sandstone	503,319	Gea-3	IM-89

⁵No sales or production.⁶No report filed in 1985.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Best Silica Co. 11830 Ravenna Rd. P.O. Box 87 Chardon, OH 44024 216-946-3441	Best Silica Co. (16)	Geauga	sandstone	96,360	Gea-36	IM-337
Beverly Slag Co. P.O. Box 599 McConnelsville, OH 43756 614-962-5621	Devola Pit (364)	Washington	sand & gravel	⁷	Wn-55	IM-669
Big Walnut Sand & Gravel Co. 45 N. Wilson Rd. Columbus, OH 43204 614-276-2678	Big Walnut Sand & Gravel Co. (97)	Franklin	sand & gravel	5,029	Fn-14	IM-832
Black Top Contracting, Inc. P.O. Box 98 Belpre, OH 45714 614-423-5455	Black Top #1 (19)	Athens	sand & gravel	14,677	As-588	IM-630
E. E. Blair Construction Co. P.O. Box 31 Wheelersburg, OH 45694 614-574-6575	E. E. Blair Construction Co. (303)	Scioto	sand & gravel	⁸	So-98	IM-474
Bluffton Stone Co. P.O. Box 26 Bluffton, OH 45817-0026 419-358-6941	Bluffton Stone Co. (3)	Allen	limestone	110,827	An-1	IM-485
Elmer Borchardt, Inc. 313 E. Lucas St. P.O. Box 188 Castalia, OH 44824-0188 419-684-5361	Elmer Borchardt, Inc. (83)	Erie	sand & gravel	900	Ee-18	IM-676
Bowerston Shale Co. 1329 Seven Hills Rd. NE Newark, OH 43055 614-269-2921	Bowerston Shale Co. (11) Bowerston Shale Co. (31) Bowerston Shale Co. (38)	Harrison Licking Muskingum	shale shale clay	46,200 20,320 23,567	Hn-152 Lg-501 Mum-776	IM-42 IM-257 IM-256
D. H. Bowman & Sons, Inc. State Rte. 97 P.O. Box 57 Bellville, OH 44813 419-886-2711	D. H. Bowman & Sons, Inc. (287)	Richland	sand & gravel	80,549	Rd-4	IM-279
Boyas Excavating, Inc. 4100 Brookpark Rd. Cleveland, OH 44134-1196 216-398-3900	Boyas' Valley View Quarry (13)	Cuyahoga	sandstone	1,240	Cya-BE ⁹	IM-686
Boyd Gravel Co. 24270 Twp. Rd. 1202 Coshocton, OH 43812 614-622-4406	Boyd Gravel Co. (71)	Coshocton	sand & gravel	138,933	Cn-694	IM-293
Brandewie Gravel Co. 10251 Brandewie Rd. Fort Loramie, OH 45845 513-582-2287	Brandewie Gravel Co. (308)	Shelby	sand & gravel	⁸	Shy-8	IM-534
The Brewer Company P.O. Box 44098 Cincinnati, OH 45244 513-561-8843	The Brewer Company (59)	Clermont	sand & gravel	⁸	Ct-9	IM-526
Briar Hill Stone Co. P.O. Box 398 Glenmont, OH 44628 216-276-4011	Quarry #26 (4) Quarry #3 (5) Quarry #32 (6) Quarry #24 (7) Quarry #18 (8) Quarry #53 (9) Quarry #51 (10) Quarry #15 (12) Quarry #54 (11) Quarry #31 (19) Quarry #34 (22) Quarry #6 (23)	Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Holmes Knox Knox	sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone	602 4,663 3,118 2,402 ⁷ ⁷ ⁷ 2,320 1,129 ⁷ ⁷ 1,011	Cn-13 Cn-659 Cn-686 Cn-692 Cn-695 Cn-731 Cn-771 Cn-788 Cn-809 Hs-49 Kx-10 Kx-12	IM-397 IM-232 IM-504 IM-294 IM-402 IM-332 IM-653 IM-775 IM-332 IM-418 IM-444 IM-445

⁷No sales or production.⁸No report filed in 1985.⁹No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Briggs Sand & Gravel, Inc. R.D. 4 Box 303 Marietta, OH 45750 614-373-3363	Briggs Sand & Gravel, Inc. (365)	Washington	sand & gravel	13,308	Wn-508	IM-57
Broadway Sand & Gravel Co., Inc. 2000 Sandridge Dr. Dayton, OH 45439 513-299-1166	Broadway Sand & Gravel Co., Inc. (225)	Montgomery	sand & gravel	96,347	My-65	IM-594
Brohard Mining & Development, Inc. P.O. Box 6 Pedro, OH 45659 614-532-1510	Brohard Mining & Development, Inc. (48)	Lawrence	limestone	¹⁰	Le-241	IM-15
	(27)		clay	¹⁰		
	(27)		shale	¹⁰		
	Brohard Mining & Development, Inc. (168)	Lawrence	sand & gravel	¹¹	Le-406	IM-289
Brohard Mining & Development, Inc. (40)	(26)	Lawrence	clay	1,258	Le-BMD ¹²	IM-885
	(169)		limestone	¹¹		
	(25)		sand & gravel	¹¹		
	(28)		sandstone clay	¹¹		
Bros. Sand & Gravel Co. P.O. Box 69 Millersburg, OH 44654 216-674-8121	Bros. Sand & Gravel Co. (153)	Holmes	sand & gravel	75,185	Hs-82	IM-707
Broshear Gravel Co. 2520 Millville-Ross Rd. Hamilton, OH 45013 513-863-3388	Broshear Gravel Co. (31)	Butler	sand & gravel	15,400	Br-48	
Brown County Highway Dept. Court House Georgetown, OH 45121 513-378-6456	Brown County Rock Crusher (14)	Brown	limestone	6,248	Bn-1	
Karl Brugmann Sand & Gravel 8488 Weaver Rd. Ravenna, OH 44266 216-626-3914	Karl Brugmann Sand & Gravel (257)	Portage	sand & gravel	55,498	Pe-15	IM-104
Oscar Brugmann Sand & Gravel, Inc. 3828 Dudley Rd. Mantua, OH 44255 216-274-8224	Oscar Brugmann Sand & Gravel, Inc. (258)	Portage	sand & gravel	354,569	Pe-9	IM-119
Charles Bucklew Sand & Gravel Co. 911 County Rd. 175 Polk, OH 44866 419-869-7212	Charles Bucklew (3)	Ashland	sand & gravel	4,209	Ald-3	IM-553
James Bunnell, Inc. 5714 State Rte. 128 Cleves, OH 45002 513-353-1100	James Bunnell, Inc. (123)	Hamilton	sand & gravel	500	Hmn-50	IM-205
	James Bunnell, Inc. (124)	Hamilton	sand & gravel	288,291	Hmn-59	IM-815
Burlington Sand & Gravel Co. P.O. Box 399 Chesapeake, OH 45619 614-894-5978	Burlington Sand & Gravel (170)	Lawrence	sand & gravel	10,524	Le-426	IM-856
C.D. Materials P.O. Box 145 Garrison, KY 41141 606-757-2138	C.D. Materials (20)	Athens	sand & gravel	¹⁰	As-1140	IM-101
	Piketon Pit (252)	Pike	sand & gravel	35,486	Pke-26	IM-142
C M Mining, Inc. 7001 Ridge Rd. P.O. Box 267 East Sparta, OH 44626-0267 216-484-6355	C M Mine (39) (50)	Stark	sandstone clay	¹¹ 3,214	Sk-214	IM-798
Canton Aggregate Div. of Central Allied Enterprises, Inc. P.O. Box 1387 Station C Canton, OH 44708 216-477-6751	Canton Aggregate (318)	Stark	sand & gravel	442,778	Sk-681	IM-164
	Canton Aggregate (319)	Stark	sand & gravel	156,563	Sk-689	IM-173
C. Carmical Sand & Gravel Co. 5441 E. Miami River Rd. Miamitown, OH 45247 513-385-8637	C. Carmical Sand & Gravel Co. (125)	Hamilton	sand & gravel	¹⁰	Hmn-66	IM-780

¹⁰No report filed in 1985.¹¹No sales or production.¹²No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Carpenter's Excavating 4224 Fernbrook St. Kettering, OH 45440 513-299-7328	Carpenter's Excavating (228)	Montgomery	sand & gravel	7,908	My-67	IM-725
Carter & Webb, Inc. P.O. Box 266 Miamisburg, OH 45342 513-859-4315	Carter & Webb, Inc. (229)	Montgomery	sand & gravel	4,677	My-68	IM-646
Cedar Heights Clay Co. P.O. Box 295 Oak Hill, OH 45656-0295 614-682-7794	Cedar Heights (21) Cedar Heights (22)	Jackson Jackson	clay clay	68 14,114	Jkn-1001 Jkn-1007	IM-19, IM-336 IM-24
Celotex Corp. P.O. Box 280 Port Clinton, OH 43452 419-734-3153	American No. 2 (1)	Ottawa	gypsum	247,963	Oa-2	IM-344
Central Ohio Coal Co. P.O. Box 98 Cumberland, OH 43732 614-962-2013	Sidwell Quarry #3 (73) Sidwell Quarry (78) Sidwell Quarry #2 (74)	Morgan Muskingum Muskingum	limestone limestone limestone	30,185 336,947 175,338	Mon-600 Mum-104 Mum-896	IM-281 IM-277 IM-301
Central Silica Co. 806 Market St. Zanesville, OH 43701 614-452-2775	Millwood Sand Division (24) Central Silica Co. (31)	Knox Perry	sandstone sandstone	214,394 319,617	Kx-1 Py-202	IM-269 IM-14
Chaney Mining Co. P.O. Box 492 Lucasville, OH 45648 614-259-2866	Chaney Mining Co. (29)	Lawrence	clay	¹³	Le-362	IM-152, IM-195
Charlestown Sand & Gravel Co. 7845 State Rte. 5 Ravenna, OH 44266 216-296-9233	Charlestown Sand & Gravel (259)	Portage	sand & gravel	18,117	Pe-17	IM-123
Chattin Concrete 9978 State Rte. 220 P.O. Box 49 Waverly, OH 45690 614-947-4677	Chattin Concrete (253)	Pike	sand & gravel	9,735	Pke-23	IM-242
Chesterhill Stone Co. 773 East State Rte. 60 NE P.O. Box 599 McConnelsville, OH 43756 614-962-5621	Stockport Plant #2 (240) Fultonham #1 (75) Lowell Plant #3 (366)	Morgan Muskingum Washington	sand & gravel limestone sand & gravel	177,843 469,821 198,071	Mon-588 Mum-106 Wn-56	IM-35 IM-297 IM-857
Chesterville Sand & Gravel Co., Inc. P.O. Box 51 Chesterville, OH 43317 419-768-3369	Chesterville Sand & Gravel Co., Inc. (242)	Morrow	sand & gravel	74,945	Mw-10	IM-258
Chief Cornstalk Sand & Gravel, Inc. 1177 Hopetown Rd. Chillicothe, OH 45601 614-773-7479	Chief Cornstalk Sand & Gravel, Inc. (295)	Ross	sand & gravel	14,335	Rs-25	IM-896
Gerald L. Christman Rte. 2 Box 110A Lewisville, OH 43754 614-838-2475	Christman Quarry (69)	Monroe	limestone	66,000	Me-501	IM-76
Clark Clay Co. R.D. 2 Box 58 Millersburg, OH 44654 216-674-5150	Clark Clay Co. (17)	Holmes	clay	4,982	Hs-56	
Clark Gravel Co. 529 S. East St. Lebanon, OH 45036 513-932-4901	J. L. Clark Crushed Stone (351)	Warren	sand & gravel	8,365	Wan-22	IM-324
Claycraft Co. P.O. Box 866 Columbus, OH 43216 614-866-3300	Claycraft Plant #4 Shale Pit (9) Claycraft Plant #1 Clay Pit (73)	Franklin Wyandot	shale clay	18,000 31,580	Fn-1 Wt-7	IM-322 IM-407
Cleveland Quarries Co. P.O. Box 261 Amherst, OH 44001-0261 216-986-4501	Birmingham Quarry (14) Amherst Quarries (27)	Erie Lorain	sandstone sandstone	5,129 54,478	Ee-21 Ln-3	IM-416 IM-415

¹³No report filed in 1985.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Clinton Stone 1203 N. Pennsylvania Ave. Wellston, OH 45692 614-384-5659	Clinton Stone (124)	Vinton	limestone	0 ¹⁴	Vn-174	
Columbia Portland Cement Corp. P.O. Box 1531 Zanesville, OH 43701 614-849-2311	Lyle Quarry (76) (39) Jonathon Mine (76)	Muskingum Muskingum	limestone shale limestone	423,404 22,641 ¹⁵	Mum-24 Mum-24 Mum-91	IM-830 IM-303 IM-830
Con-Ag, Inc. Rte. 1 Co. Hwy. 66A N St. Marys, OH 45885 419-394-8870	Con-Ag, Inc. (10)	Auglaize	limestone	112,591	Ae-31	IM-744
Connolly Construction Co., Inc. 825 W. Sixth St. P.O. Box 271 Marysville, OH 43040 513-644-8831	East Liberty Quarry (49)	Logan	limestone	265,629	Lgn-1	IM-574
Conotton Valley Quarries Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656	Conotton Valley Quarry (1)	Carroll	sandstone	491	Cl-102	IM-278
Copley Sand & Gravel Co. 8650 Brookpark Rd. Cleveland, OH 44129 216-351-1100	Copley Sand & Gravel Co. (260)	Portage	sand & gravel	8,812	Pe-84	IM-868
County Line Sand & Gravel 659 W. County Line Rd. Springfield, OH 45502 513-399-9200	County Line Sand & Gravel (53)	Clark	sand & gravel	3,342	Ck-27	IM-549
Cox Gravel, Inc. P.O. Box 127 Dresden, OH 43821 614-754-2011	Jennings (243) Prospect (244)	Muskingum Muskingum	sand & gravel sand & gravel	28,479 ¹⁵	Mum-799 Mum-863	IM-264 IM-317
Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656	Dover Pit (13)	Belmont	limestone	46,093	Bt-119	IM-733
R. A. Cruise Sand & Gravel, Inc. 7639 State Rte. 14 Ravenna, OH 44266 216-296-4087	R. A. Cruise Sand & Gravel, Inc. (261)	Portage	sand & gravel	54,827	Pe-45	IM-139
Cunningham Asphalt Paving, Inc. P.O. Box 202 Wheelersburg, OH 45694 614-574-6184	Cunningham Pit (304)	Scioto	sand & gravel	8,822	So-83	IM-211
D & J Energy, Inc. Rte. 1 Box 351 Bidwell, OH 45614 614-384-2614	D & J Energy (46)	Jackson	limestone	113,824	Jkn-583	IM-894
D & W Sand & Gravel Co. 10677 Wren Rd. Mechanicsburg, OH 43044 513-834-3242	D & W Sand & Gravel (49)	Champaign	sand & gravel	¹⁶	Cpn-21	IM-616
J & J Davenport 923 McBurny Dr. Lebanon, OH 45036 513-932-2901	J & J Davenport (356)	Warren	sand & gravel	¹⁵	Wan-47	IM-846
Davis Sand & Gravel 311 Mt. Zion Rd. SW Lancaster, OH 43130 614-687-1876	Davis Sand & Gravel (91)	Fairfield	sand & gravel	¹⁵	Fd-12	IM-451
Davon, Inc. 4281 Rousch Rd. Hillsboro, OH 45133 513-393-4211	Plum Run Stone Division (1) Highland Stone Division (41)	Adams Highland	limestone limestone	958,899 426,492	Ads-1 Hd-2	IM-237 IM-230
Woodrow C. Demmy 4324 Fairfield Pike Springfield, OH 45502 513-325-8840	Demmy Sand & Gravel (54)	Clark	sand & gravel	15,829	Ck-502	IM-375

¹⁴Processing facility only, no sales or production.¹⁵No sales or production.¹⁶No report filed in 1985.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Dennis Clay Co. State Rte. 37 Box 10922 New Lexington, OH 43764 614-342-5269	Corver Mine (74) Cannon Mine (43) Browning Mine (75)	Muskingum Perry Perry	clay clay clay	1,545 3,660 ¹⁸	Mum-D ¹⁷ Py-296 Py-D ¹⁷	IM-917 IM-37 IM-920
Derwacter Sand & Gravel R.D. 2 Spayde Rd. Bellville, OH 44813 419-886-3581	Derwacter Sand & Gravel (288)	Richland	sand & gravel	¹⁹	Rd-9	IM-369
Diamond Crystal Salt Co. 2065 Manchester Rd. P.O. Box 149 Akron, OH 44309 216-745-0031	Diamond Crystal Salt Co. (4)	Summit	salt	159,679	St-9127	
Diamond Stone Quarries, Inc. P.O. Box 66 Albany, OH 45710 614-698-2431	Plant No. 1 (8) Plant No. 2 (9)	Athens Athens	limestone limestone	162,544 157,475	As-532 As-533	IM-16, IM-597 IM-17
A. J. Diana & Sons, Inc. 1916 Erie Ave. NW P.O. Box 488 Massillon, OH 44646 216-832-5904	Neidert Pit (320)	Stark	sand & gravel	16,073	Sk-694	IM-858
Dingledine Sand & Gravel 4560 Oxford-Trenton Rd. Oxford, OH 45056 513-523-4380	Dingledine Sand & Gravel (32)	Butler	sand & gravel	¹⁹	Br-50	IM-739
Dinnen Sand & Gravel 1991 W. Jackson Rd. Yellow Springs, OH 45387 513-325-3610	Dinnen Sand & Gravel (55)	Clark	sand & gravel	¹⁹	Ck-501	IM-340
Dravo Corp. Aggregates Division MDC Building Second St. Pittsburgh, PA 15225 412-777-5886	Fairfield Plant (33) Ross Plant (34) Cleves Plant (126) Camp Dennison Plant (127) Newtown Plant (128) Newtown Plant (128) Newtown Plant (128) Cleves Plant (129) Cleves Plant (130) Apple Grove Plant (209) South Lebanon Plant (352)	Butler Butler Hamilton Hamilton Hamilton Hamilton Hamilton Hamilton Hamilton Meigs Warren	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	29,670 ¹⁸ ¹⁸ ¹⁸ 61,697 ¹⁸ ¹⁸ 64,372 ¹⁸ ⁰²⁰ ¹⁸ 94,920 5,717 32,039	Br-14 Br-29 Hmn-3 Hmn-5 Hmn-11 Hmn-47 Hmn-55 Hmn-62 Hmn-64 Ms-205 Wan-41 ²¹	IM-147 IM-149 IM-137, IM-801 IM-148 IM-133 IM-133 IM-133 IM-691 IM-812, IM-821 IM-30 IM-629
Dravo Northern Aggregates 5253 Wooster Rd. Cincinnati, OH 45226 513-321-2700	Dravo Northern Aggregates (131)	Hamilton	sand & gravel	¹⁹	Hmn-68	IM-747
Joe N. Dresbach 2626 Higby Rd. Chillicothe, OH 45601 614-884-4944	Joe N. Dresbach (296)	Ross	sand & gravel	1,218	Rs-12	IM-560
Dry Creek Crushed Gravel Co. 2097 Mt. Vernon Rd. Newark, OH 43055 614-366-3333	Dry Creek Crushed Gravel Co. (175) Dry Creek Farms (176) Dry Creek Crushed Gravel Co. (177)	Licking Licking Licking	sand & gravel sand & gravel sand & gravel	8,440 80,000 ²²	Lg-7 Lg-31 Lg-DC ¹⁷	IM-247 IM-246 IM-354
C.E. Duff & Son, Inc. 9042 State Rte. 117 P.O. Box 265 Huntsville, OH 43324 513-686-2488	C.E. Duff & Son, Inc. (50) Duff Sand Co. (182) C.E. Duff & Son, Inc. (183)	Logan Logan Logan	limestone sand & gravel sand & gravel	163,400 61,389 ¹⁸	Lgn-15 Lgn-31 Lgn-39	IM-453 IM-454 IM-887
Eagle City Sand & Gravel Co. 1015 Eagle City Rd. Springfield, OH 45502 513-399-0340	Eagle City Sand & Gravel Co. (53)	Clark	sand & gravel	¹⁹	Ck-7	IM-449
East Ohio Limestone Co. P.O. Box 699 Hartsville, OH 44632 216-877-2636	East Ohio Limestone Co. (113) (52)	Stark	limestone clay	99,399 ¹⁸	Sk-663	IM-5

¹⁷No mine number has been assigned by the Division of Mines.¹⁸No sales or production.¹⁹No report filed in 1985.²⁰Production only, no sales.²¹This mine was operated 1st quarter 1985 by Dravo Corp. and 1st through 4th quarters by Carl E. Oeder & Sons Sand & Gravel.²²All sales and production are reported under Lg-31.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Eaton Sand & Gravel Co., Inc. 1075 Eaton Dr. Covington, KY 41017 606-331-2303	Eaton Sand & Gravel Co., Inc. (132)	Hamilton	sand & gravel	122,740	Hmn-46	IM-396
Eberhart Coal, Inc. 6406 Cleveland Ave. South East Sparta, OH 44626 216-484-4261	Eberhart #2 Hott Strip (61)	Tuscarawas	clay	14,268	Ts-1620	D-0013
Economy Sand Co. P.O. Box 754 Proctorville, OH 45669 614-886-6662	Economy Sand Co. (171)	Lawrence	sand & gravel	38,596	Le-441	
Eldean Gravel Co. 135 E. Main St. P.O. Box 440 Tipp City, OH 45371 513-667-4431	Eldean Gravel Co. (215)	Miami	sand & gravel	107,670	Mi-2	IM-367
Elm Spring Farm 938 State Rte. 207 Chillicothe, OH 45601 614-775-5525	Elm Spring Farm (297)	Ross	sand & gravel	8,500	Rs-26	
Embros, Inc. 8320 North State Rte. 123 Franklin, OH 45005 513-746-6121	Embros, Inc. (353)	Warren	sand & gravel	²³	Wan-7	IM-151
Englewood Sand & Gravel Co., Inc. 501 E. Wenger Rd. P.O. Box 96 Englewood, OH 45322 513-836-5121	Englewood Sand & Gravel (230) Englewood Sand & Gravel (230)	Montgomery Montgomery	sand & gravel sand & gravel	1,135 3,185	My-5 My-64	IM-600 IM-600
M.T. Epling Co. 1725 Eastern Ave. Gallipolis, OH 45631 614-446-2742	Georges Creek Pit (105) M.T. Epling Sand & Gravel Plant (106)	Gallia Gallia	sand & gravel sand & gravel	²⁴ ²⁴	Ga-243 Ga-245	IM-238
Erie Blacktop, Inc. 4507 Tiffin Ave. P.O. Box 2308 Sandusky, OH 44870 419-625-7374	Erie Blacktop, Inc. (24)	Erie	limestone	2,007	Ee-27	IM-608
Erie Sand & Steamship Co. Foot of Sassafra St. Erie, PA 16507 814-453-6721	Erie Sand & Steamship Co. (1)	Lake Erie	sand & gravel (dredged)	94,284		
Ernst Aggregates, Inc. 135 E. Main St. P.O. Box 440 Tipp City, OH 45371 513-667-4431	Bellbrook Gravel-Foreman Pit (111)	Greene	sand & gravel	²⁴	Ge-25	
Ernst Gravel Co. P.O. Box 440 Tipp City, OH 45371 513-667-4431	Ernst Gravel Co. (216) Ernst Gravel Co. (309)	Miami Shelby	sand & gravel sand & gravel	170,390 ²⁴	Mi-6 Shy-1	IM-356 IM-380
Don Evans Sand & Gravel 6578 Kilby Rd. Harrison, OH 45030 513-367-9530	Don Evans Sand & Gravel (133) Don Evans Sand & Gravel (134)	Hamilton Hamilton	sand & gravel sand & gravel	²³ ²³	Hmn-65 Hmn-DE ²⁵	IM-736 IM-771
Fairfield Brick Co. P.O. Box 115 Zoarville, OH 44656-0115 216-859-2463	Fairfield Brick Co. (62)	Tuscarawas	shale	²⁴	Ts-527	IM-583
Fairfield Ready Mix 3292 Mack Rd. Fairfield, OH 45014 513-868-2400	Fairfield Ready Mix (35) Fairfield Ready Mix (36)	Butler Butler	sand & gravel sand & gravel	²³ ²³	Br-49 Br-53	IM-403 IM-903
Feikert Sand & Gravel, Inc. R.D. 5 Box 365 Millersburg, OH 44654-9186 216-674-0038	Feikert Sand & Gravel, Inc. (154)	Holmes	sand & gravel	63,496	Hs-511	IM-345

²³No report filed in 1985.²⁴No sales or production.²⁵No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Feitshans Excavating 4550 State Rte. 121 S Greenville, OH 45331 513-548-4982	Feitshans Excavating (79)	Darke	sand & gravel	²⁶	Dke-7	
Ferris Coal Co., Inc. 371 South St. East Palestine, OH 44413 216-426-9680	Ferris Coal Co., Inc. (4) (4)	Columbiana	clay shale	²⁷ ²⁷	Ca-505	IM-13
	Ferris Coal Co., Inc. (65)	Columbiana	sand & gravel	²⁷	Ca-913	IM-13
Fleckenstein Farm Gravel Pit 11251 State Rte. 66 Minster, OH 45865 513-295-2417	Fleckenstein Farm Gravel Pit (310)	Shelby	sand & gravel	13,132	Shy-12	IM-528
Fleming Construction Co. P.O. Box 31 Marion, OH 43302 614-494-2476	Fleming Construction Co. (197)	Marion	sand & gravel	²⁷	Mn-16	IM-171
Flesher Sand & Gravel 3322 Clark Mill Rd. Norton, OH 44203 216-745-9239	Flesher Sand & Gravel (327)	Summit	sand & gravel	19,611	St-52	IM-900
Foureman's Sand & Gravel, Inc. 2791 Wildcat Rd. Greenville, OH 45331 513-548-1718	Foureman's Sand & Gravel, Inc. (80)	Darke	sand & gravel	57,158	Dke-4	IM-433
Fox Stone Products, Inc. P.O. Box 299 Put-in-Bay, OH 43456 419-285-3025	Fox Stone Products, Inc. (81)	Ottawa	limestone	²⁷	Oa-17	IM-635
The France Stone Co. P.O. Box 1928 Toledo, OH 43603 419-241-4101	Waterville (52) Silica (53) Paulding (86) Bellevue (100) Flat Rock (107) Bloomville (108) North Baltimore (128) Custar (129)	Lucas Lucas Paulding Sandusky Seneca Seneca Wood Wood	limestone limestone limestone limestone limestone limestone limestone limestone	246,235 609,053 70,783 3,466 1,316,020 418,767 ²⁶ 148,149	Ls-1 Ls-3 Pg-7 Sy-6 Sa-1 Sa-3 Wd-2 Wd-5	IM-575 IM-580 IM-346 IM-347 IM-349 IM-576 IM-473
Fredericktown Sand & Gravel Co. P.O. Box 112 Fredericktown, OH 43019 614-694-2096	Fredericktown Sand & Gravel Co. (159)	Knox	sand & gravel	215,351	Kx-13	IM-343
Frye Sand & Gravel Co. 3049 Denmark Rd. P.O. Box 3 Dorset, OH 44032 216-858-2627	Frye Sand & Gravel Co. (9)	Ashtabula	sand & gravel	²⁶⁷	Asa-10	IM-198
Fuhrer Farms 258 Ninth St. SW Strasburg, OH 44680 216-878-5256	Fuhrer Farms (341)	Tuscarawas	sand & gravel	²⁷	Ts-1961	IM-845
Galena Shale, Tile & Brick Co. 66 Holmes St. Galena, OH 43021 614-965-1010	Galena Shale, Tile & Brick Co. (8)	Delaware	shale	²⁷	Del-8	IM-245
Galion Materials Division of Wyandot Blacktop, Inc. 1465 N. Main St. P.O. Box 565 Marion, OH 43302 614-383-6343	Galion Materials (74)	Crawford	sand & gravel	²⁶	Cd-4	IM-636
John L. Garber Materials, Inc. R.R. 8 Box 246 Lexington, OH 44904 419-884-1567	J. L. Garber Materials, Inc. (290)	Richland	sand & gravel	289,047	Rd-14	IM-436
General Clay Products Corp. P.O. Box 236 Baltic, OH 43804-0236 216-897-7171	Drescher Pit (6) (6) Troyer Pit (18)	Coshocton Holmes	clay shale shale	3,514 13,624 9,571	Cn-787 Hs-77	IM-610 IM-545
General Clay Products Corp. P.O. Box 550 Logan, OH 43138 614-385-5616	General Clay Products Corp. (12) (12)	Hocking	clay shale	15,803 8,567	Hg-205	IM-21

²⁶No sales or production.²⁷No report filed in 1985.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
General Clay Products Corp. 9866 Mt. Eaton Rd. P.O. Box 340 Wadsworth, OH 44281 216-335-1515	General Clay Products Corp. (37) (37)	Medina	clay shale	9,255 43,469	Ma-6	IM-455
General Portland, Inc. Peninsular Portland Cement Div. P.O. Box 160 Paulding, OH 45879 419-399-4861	Paulding Quarry (87) (42)	Paulding	limestone clay	558,910 127,885	Pg-1	IM-513
Gerken Materials, Inc. P.O. Box 607 Napoleon, OH 45345 419-533-2421	Gerken Materials, Inc. (147)	Henry	sand & gravel	19,829	Hy-5	
Gibson Sand & Gravel Co. 1385 Knorr Rd. Galion, OH 44833 419-468-5527	Gibson Sand & Gravel (75)	Crawford	sand & gravel	424	Cd-3	IM-693
C. R. Gill Construction 204 Bertha Ave. Clyde, OH 43410 419-547-9840	C. R. Gill Construction (301)	Sandusky	sand & gravel	²⁸	Sy-21	IM-633
Glen-Gery Corp. 5692 Rinker Rd. P.O. Box 398 Caledonia, OH 43314 419-845-3321	Glen-Gery Corp. (36)	Marion	shale	63,500	Mn-7	IM-309
Goodwin Sand & Gravel, Inc. 126 S. Norton St. Mt. Vernon, OH 43050 614-392-7971	Goodwin Sand & Gravel, Inc. (160)	Knox	sand & gravel	85,530	Kx-7	IM-235
Gottron Bros. Co. 100 South Stone St. Fremont, OH 43420 419-332-5281	Gottron Bros. Co. (101)	Sandusky	limestone	76,220	Sy-5	IM-259
The Gravel Co. 325 Clark Rd. P.O. Box 15501 Cincinnati, OH 45215 513-761-0326	The Gravel Co. (63)	Clinton	sand & gravel	²⁸	Cln-10	IM-638
Gregory Materials Co. 14133 U.S. Rte. 23 N Waverly, OH 45690 614-947-5559	Plant #1 (254)	Pike	sand & gravel	42,730	Pke-30	IM-786
Gregory Stone, Inc. 3244 S. Davis Rd. Ludlow Falls, OH 45339 513-275-7455	Gregory Quarry (65)	Miami	limestone	3,201	Mi-16	IM-414
H. T. Griffin Excavating Rte. 5 Box 228 Swanton, OH 43558 419-825-5955	H. T. Griffin Excavating (192)	Lucas	sand & gravel	²⁹	Ls-19	IM-622
Groves Gravel Co. 2068 N. Troy Rd. Bellefontaine, OH 43311 513-592-6765	Groves Gravel (184)	Logan	sand & gravel	²⁹	Lgn-36	IM-581
Guernsey Limestone Co., Inc. P.O. Box 652 Marietta, OH 45750 614-373-4929	Guernsey Limestone Co., Inc. (126)	Washington	limestone	4,849	Wn-47	IM-62
Gwin Contracting Co. P.O. Box 205 Columbiana, OH 44408 216-482-2442	Gwin Contracting Co. (30)	Mahoning	sandstone	116,903	Mg-62	IM-599
H & M Sand & Gravel Co. 1022 Blanchard Ave. P.O. Box 497 Findlay, OH 45840 419-422-5923	H & M Sand & Gravel Co. (380) H & M Sand & Gravel Co. (380) H & M Sand & Gravel Co. (381)	Wyandot Wyandot Wyandot	sand & gravel sand & gravel sand & gravel	159,742 ⁰³⁰ ²⁸	Wt-5 Wt-15 Wt-18	IM-376 IM-376 IM-551

²⁸No sales or production.²⁹No report filed in 1985.³⁰Production only, no sales.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Haas Gravel Co. 405 E. Wenger Rd. Englewood, OH 45332 513-836-5603	Haas Gravel Co. (231)	Montgomery	sand & gravel	³¹	My-30	IM-496
J. M. Hamilton & Sons Co. 1974 Marion-Bucyrus Rd. Marion, OH 43302 614-382-2189	J. M. Hamilton & Sons Co. (59)	Marion	limestone	72,661	Mn-2	IM-423
Hammer Clay Co., Inc. 12398 Old Rainer Rd. Roseville, OH 43777 614-697-7030	Hammer Clay Co., Inc. (40)	Muskingum	clay	4,344	Mum-848	IM-748
Hard Rocks, Inc. 9340 State Rte. 5 NE Kinsman, OH 44428 216-876-1565	Hard Rocks, Inc. (40)	Trumbull	sandstone	43,691	Tl-13	IM-777
Hardin Quarry Co., Inc. 12484 State Rte. 701 Kenton, OH 43326 419-675-1327	Hardin Quarry Co., Inc. (38)	Hardin	limestone	119,145	Hdn-2	IM-443
Harris Excavating Co. R.D. 1 State Rte. 113 Berlin Heights, OH 44814-9101 419-588-2518	Harris Excavating Co. (15)	Erie	sandstone	1,400	Ee-15	IM-708
Harrison Sand & Gravel Co. 10980 Campbell Rd. Harrison, OH 45030 513-655-2174	Harrison Sand & Gravel Co. (135)	Hamilton	sand & gravel	³²	Hmn-17	IM-295
Hartville Sand & Gravel, Inc. P.O. Box 1009 Hartville, OH 44632 216-877-9613	Hartville Sand & Gravel (321)	Stark	sand & gravel	45,534	Sk-182	IM-67
Haubeil & Sons 691 Marietta Pike Chillicothe, OH 45601 614-773-6358	Haubeil & Sons (298)	Ross	sand & gravel	38,393	Rs-24	IM-735
Haueter Sand & Gravel Co. P.O. Box 206 Chardon, OH 44024 216-286-9482	Haueter Sand & Gravel Co. (108)	Geauga	sand & gravel	267,593	Gea-29	IM-215
Heiser Sand & Gravel P.O. Box 2491 North Canton, OH 44720 216-499-8201	Heiser Sand & Gravel (322) Heiser Sand & Gravel (323)	Stark Stark	sand & gravel sand & gravel	62,088 10,416	Sk-206 Sk-688	IM-715 IM-763
Heiser Stone Co. P.O. Box 2491 North Canton, OH 44720 216-499-8201	Heiser Stone Co. (55)	Mahoning	limestone	19,998	Mg-43	IM-723
Hillsdale Sand & Gravel, Inc. P.O. Box 223 Archbold, OH 43502 419-445-1015	Hillsdale Sand & Gravel, Inc. (82)	Defiance	sand & gravel	³¹	De-2	IM-765
Hilltop Aggregate, Inc. P.O. Box 362 Mogadore, OH 44260 216-628-9992	Hilltop Aggregate, Inc. (262)	Portage	sand & gravel	243,119	Pe-56	IM-127
Hilltop Basic Resources, Inc. 630 Vine St. Cincinnati, OH 45202 513-299-6058	Enon Washed Sand & Gravel Co. (57) Fairborn Aggregate Plant (112) West Carrollton Aggregate Plant (232)	Clark Clark, Greene Montgomery	sand & gravel sand & gravel sand & gravel	155,076 487,368 668,115	Ck-3 Ge-4 My-19	IM-463 IM-394 IM-390
Hocking County Engineers Court House Logan, OH 43138 614-385-8545	Hocking Co. Gravel Pit (150)	Hocking	sand & gravel	11,100	Hg-296	IM-559
Hocking Valley Concrete 35255 Hocking Dr. Logan, OH 43138 614-385-2165	Hocking Valley Concrete (151)	Hocking	sand & gravel	40,808	Hg-262	IM-41

³¹No sales or production.³²No report filed in 1985.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Hollinger Gravel Plant 1977 Royer Rd. New Madison, OH 45346 513-996-6367	Hollinger Gravel Plant (81)	Darke	sand & gravel	206	Dke-10	IM-326
Holmes Limestone Co. P.O. Box 295 Berlin, OH 44610 216-893-2721	241 Plant (44) (19) Wayne Mine (45)	Holmes Holmes, Wayne	limestone clay limestone	74,404 59,764 107,094	Hs-67 Hs-79 ³³	IM-768 IM-656
Honey Creek Stone Co. P.O. Box 286 Petersburg, OH 44454 216-542-2372	Honey Creek Stone Co. (56)	Mahoning	limestone	199,073	Mg-54	IM-93
Hornsby Sand & Gravel Co. 7450 Dryfork Rd. Cleveland, OH 45002 513-367-6101	Hornsby Sand & Gravel Co. (136) Hornsby Sand & Gravel Co. (354) Hornsby Sand & Gravel Co. (355)	Hamilton Warren Warren	sand & gravel sand & gravel sand & gravel	142,266 ³⁴ ³⁵	Hmn-45 Wan-46 Wan-H ³⁶	IM-314 IM-679 IM-842
Howerton Supply Co. State Rte. 133 Felicity, OH 45120 513-421-0555	Howerton Supply Co. (60)	Clermont	sand & gravel	³⁵	Ct-12	IM-648
Lewis Huck R.D. 3 McConnelsville, OH 43756 614-962-3467	Huck Farm (241)	Morgan	sand & gravel	³⁴	Mon-599	
Warner L. Hughes, Inc. 2375 Waterloo Rd. Suffield, OH 44261 216-628-9916	Hughes Pit (263)	Portage	sand & gravel	2,991	Pe-76	IM-678
Hugo Sand Co. 7055 State Rte. 43 Kent, OH 44240 216-673-4710	Hugo Sand Co. (264)	Portage	sand & gravel	³⁵	Pe-10	IM-138
Humphrey Farms P.O. Box 128 Reedsville, OH 45772-0128 614-378-6295	Vivian Humphrey (210)	Meigs	sand & gravel	235	Ms-295	
Hydraulic Press Brick Co. P.O. Box 31330 Independence, OH 44131 314-621-9306	Hydraulic Press Brick Co. (7)	Cuyahoga	shale	150,130	Cya-19	IM-35
Indian Creek Gravel Co. 4975 College Corner Pike Oxford, OH 45056 513-523-2397	Indian Creek Sand & Gravel (37)	Butler	sand & gravel	3,849	Br-40	IM-493
International Salt Co. P.O. Box 6920 Cleveland, OH 44101 216-651-7200	Cleveland Mine (1)	Cuyahoga	salt	2,027,709	Cya-30	
J.P. Sand & Gravel Co. 5911 Lockbourne Rd. P.O. Box 2 Lockbourne, OH 43137 614-497-0083	J.P. Sand & Gravel Co. (98)	Franklin	sand & gravel	235,752	Fn-52	IM-191
Jackie Lee Enterprises, Inc. 800 W. Waterloo Rd. P.O. Box 7156 Akron, OH 44306 216-753-4531	Minor Rd. Plant (328)	Summit	sand & gravel	87,899	St-39	IM-130
Janson Soil Service 1492 Mechanicsville Rd. Rock Creek, OH 44084 216-466-3835	Janson Soil Service (10)	Ashtabula	sand & gravel	11,306	Asa-14	IM-563
Jarret Sand Co. 6505 Skadden Rd. Sandusky, OH 44870 419-359-1750	Jarret Sand Co. (84)	Erie	sand & gravel	³⁴	Ee-29	

³³All sales and production are from Holmes County.³⁴No sales or production.³⁵No report filed in 1985.³⁶No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Jefferson Materials Co. 8505 State Rte. 14 Kent, OH 44240 216-626-3816	Howitt (265)	Portage	sand & gravel	183,282	Pe-63	IM-82
Johnson Gravel Co. U.S. Rte. 68 South P.O. Box 122 Bellevue, OH 43311 513-592-2075	Johnson Gravel Co. (185)	Logan	sand & gravel	³⁷	Lgn-26	IM-429
Jones Sand & Gravel Co. 1516 Timken Rd. Wooster, OH 44691 216-264-1070	Jones Sand & Gravel Co. (155)	Holmes	sand & gravel	³⁸	Hs-74	IM-501
Jones Trucking Co. 987 County Rd. 175 Polk, OH 44866 419-869-7290	Jones Trucking Co. (4)	Ashland	sand & gravel	³⁷	Ald-10	IM-558
Joseph Sand & Gravel Rte. 6 Boundary Rd. Wapakoneta, OH 45895 419-568-3787	Joseph Sand & Gravel (23)	Auglaize	sand & gravel	11,048	Ae-23	IM-508
Kalo, Inc. 1145 Chesapeake Ave. P.O. Box 12567 Columbus, OH 43212-0567 614-488-0736	Kalo, Inc. (5)	Wyandot	peat	1,691	Wt-14	
John W. Karch Stone Co. P.O. Box 357 Celina, OH 45822 419-586-2335	John W. Karch Stone Co. (62)	Mercer	limestone	560,314	Mr-1	IM-592
Karg Sand & Gravel Co. 963 Tallmadge Rd. Kent, OH 44240 216-673-1338	Karg Sand & Gravel Co. (267) Karg Sand & Gravel Co. (266)	Portage Portage	sand & gravel sand & gravel	9,235 22,970	Pe-77 Pe-83	IM-730 IM-179
Keener Sand & Clay Co. 330 Dering Ave. Columbus, OH 43207 614-444-1105	Huron Plant (85) Gallia Plant (107)	Erie Gallia	sand & gravel sand & gravel	1,962 1,568	Ee-5 Ga-507	IM-23
Alvin Keiffer Trucking & Excavating 296 State Rte. 604 Polk, OH 44866 419-869-7238	Dinsmore Pit (5)	Ashland	sand & gravel	3,040	Ald-12	IM-579
Kimble Limestone Co. R.D. 1 Box 386 Dover, OH 44622 216-343-1226	Kimble Limestone (117) (41) (63) (63)	Tuscarawas	limestone sandstone clay shale	74,070 200,720 62,029 383,523	Ts-1818	IM-9
King Limestone, Inc. 11300 State Rte. 340 Cumberland, OH 43732 614-638-3942	King Limestone, Inc. (79)	Noble	limestone	158,282	Ne-106	IM-85
Kinsman Sand & Gravel Co. 9443 State Rd. Kinsman, OH 44428 216-876-3321	Kinsman Sand & Gravel Co. (11)	Ashtabula	sand & gravel	135,920	Asa-K ³⁹	IM-886
Kipp's Gravel Co., Inc. 4987 State Rte. 222 Batavia, OH 45103 513-732-1024	Kipp's Gravel Co., Inc. (61)	Clermont	sand & gravel	60,395	Ct-7	IM-432
Kirby's Sand & Gravel, Inc. 4876 Twp. Hwy. 43 Rte. 4 Upper Sandusky, OH 43351 419-927-2260	Kirby's Sand & Gravel (382)	Wyandot	sand & gravel	78,816	Wt-17	IM-604
Kishler Coal & Clay Co. P.O. Box 216 Junction City, OH 43748 614-385-5371	Kishler Coal & Clay Co. (13) (13) Kishler Coal & Clay Co. (14) (14) Kishler Coal & Clay Co. (45) (45) Kishler Coal & Clay Co. (44) (44)	Hocking Hocking Perry Perry	clay shale clay shale clay shale clay shale	³⁷ ³⁷ ³⁷ ³⁷ ³⁷ ³⁷ ³⁷	Hg-256 Hg-K ³⁹ Py-297 Py-K ³⁹	IM-764 IM-816 IM-850 IM-20

³⁷No report filed in 1985.³⁸No sales or production.³⁹No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Doug Kneedler 1630 Cherry Lane Findlay, OH 45840 419-423-9988	Doug Kneedler (186) Doug Kneedler (187)	Logan Logan	sand & gravel sand & gravel	⁴⁰ 40	Lgn-37 Lgn-DK ⁴¹	IM-892 IM-880
Kohl Industries Rte. 4 New Philadelphia, OH 44662 216-343-5231	Black Hawk (114) (2) (53) (53)	Stark	limestone sandstone clay shale	3,283 ⁰⁴² 6,433 ⁰⁴²	Sk-217	IM-750
Kokosing Materials, Inc. P.O. Box 122 Fredericktown, OH 43019 614-694-0616	KMI #1 (161)	Knox	sand & gravel	15,360	Kx-16	IM-793
Konik Excavating 120 Liberty Ave. P.O. Box 39 Vermilion, OH 44089 216-967-7158	Finnegan Sandstone, Inc. (28)	Lorain	sandstone	⁴³	Ln-11	IM-555
Koontz Sandstone Co. P.O. Box 496 Wadsworth, OH 44281 216-336-3630	Koontz Sandstone Co. (29)	Medina	sandstone	⁴⁰	Ma-21	IM-291
Edward Kraemer & Sons, Inc. Bolander Rd. Clay Center, OH 43408 419-855-8388	White Rock Quarry (82)	Ottawa	limestone	761,696	Oa-6	IM-85
L & I Trucking & Construction, Inc. 1842 Adams Rd. Loveland, OH 45140 513-683-2045	L & I Trucking & Construction, Inc. (357)	Warren	sand & gravel	75,309	Wan-8	IM-240
L & M Excavators 2191 Snouffer Rd. Worthington, OH 43085 614-885-7897	Westerville Industrial Park (99)	Franklin	sand & gravel	56,800	Fn-54	IM-847
L & M Minerals, Inc. P.O. Box 54 Millersburg, OH 44654 216-893-2227	Evans (64) (64) Luikert (65) L & M Minerals, Inc. (66)	Tuscarawas Tuscarawas Tuscarawas	clay shale clay shale	32,850 62,416 1,842 ⁴⁰	Ts-1884 Ts-1914 Ts-1944	IM-6 IM-741 IM-621
Lake Hope Asphalt, Inc. State Rte. 278 P.O. Box 38 Nelsonville, OH 45764 614-753-1005	Lake Hope Asphalt, Inc. (21)	Athens	sand & gravel	23,688	As-1161	IM-97
Lakeside Sand & Gravel Co. 3431 Frost Rd. Mantua, OH 44255 216-274-2569	Lakeside Sand & Gravel (268)	Portage	sand & gravel	144,550	Pe-40	IM-190
Lancaster Sand & Gravel Co. 3232 Logan-Lancaster Rd. Lancaster, OH 43130 614-246-6315	Lancaster Sand & Gravel Co. (92)	Fairfield	sand & gravel	106,086	Fd-13	IM-848
Lappin's Farm 4309 Newcomer Rd. Kent, OH 44240 216-673-5016	Lappin's Farm (269)	Portage	sand & gravel	⁴³	Pe-82	IM-452
Latham Limestone, Inc. P.O. Box 77 Latham, OH 45646 614-493-2677	Latham Limestone, Inc. (91)	Pike	limestone	191,996	Pke-13	IM-213
Bertha A. Leonard 6539 River Rd. Harrison, OH 45030 513-738-4194	Bertha A. Leonard (137)	Hamilton	sand & gravel	200	Hmn-67	IM-529
Lerkis Asphalt Co., Inc. 550 Dan St. Akron, OH 44310 216-376-7560	Lerkis Asphalt Co., Inc. (329)	Summit	sand & gravel	⁴⁰	St-49	IM-159

⁴⁰No report filed in 1985.⁴¹No mine number has been assigned by the Division of Mines.⁴²Production only, no sales.⁴³No sales or production.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Kenneth Leupp Gravel R.D. 1 Box 79 Archbold, OH 43502 419-445-2122	Kenneth Leupp Gravel (103)	Fulton	sand & gravel	⁴⁴	Ftn-2	
Limestone, Inc. 228 Melvin Rd. Wilmington, OH 45177 513-382-2288	Limestone, Inc. (28) Limestone, Inc. (92)	Fayette Pickaway	limestone limestone	27,606 29,949	Fe-1 Pky-4	IM-831 IM-209
Lingvai Peat Co. R.R. 2 Box 107 Edgerton, OH 43517 419-298-2058	Lingvai Peat Co. (4)	Williams	peat	773	Ws-17	
W. G. Lockhart & Sons 7778 Manchester Ave. Canal Fulton, OH 44614 216-854-2251	Lockhart (270)	Portage	sand & gravel	⁴⁴	Pe-WGL ⁴⁵	IM-568
Logan Sand & Gravel Co. P.O. Box 565 Marion, OH 43302 614-383-6343	Logan Sand & Gravel Co. (188)	Logan	sand & gravel	⁴⁴	Lgn-30	
London Tiles, Inc. P.O. Box 31 New London, OH 44851 419-929-1551	London Tiles, Inc. (1)	Ashland	shale	⁴⁶	Ald-1	IM-334
Lone Star-Marquette P.O. Box 8 Pedro, OH 45659-0008 614-532-4163	Bear Run (30)	Lawrence	shale	39,178	Le-308	IM-31
Lucky Sand & Gravel Co. 12018 Frost Rd. Mantua, OH 44255 216-562-6196	Lucky Sand & Gravel Co. (271)	Portage	sand & gravel	54,512	Pe-75	IM-154
Ludlow Stone, Inc. 3244 S. Davis Rd. Ludlow Falls, OH 45339 513-698-3043	Ludlow Stone, Inc. (66)	Miami	limestone	236,229	Mi-502	IM-414
Ludowici Celadon Co. P.O. Box 69 New Lexington, OH 43764 614-342-1995	Donnelly Pit (46)	Perry	shale	⁴⁴	Py-212	IM-58
MacRitchie Materials, Inc. P.O. Box 90 West Millgrove, OH 43467 419-288-2790	MacRitchie Materials, Inc. (130)	Wood	limestone	34,763	Wd-1	IM-548
Marshall Quarry, Inc. 11199 State Rte. 124 Hillsboro, OH 45133 614-466-2560	Marshall Quarry, Inc. (43)	Highland	limestone	4,763	Hd-4	IM-406
Martin Farms, Inc. 2993 Woodsdale Rd. Trenton, OH 45067 513-988-6318	Martin Farms, Inc. (38)	Butler	sand & gravel	94,483	Br-52	IM-814
Martin Marietta Chemicals Executive Plaza on II Hunt Valley, MD 21030 301-667-0200	Woodville Quarry (102)	Sandusky	limestone	1,897,178	Sy-1	IM-537
Masons Sand & Gravel Co. 2385 Rathmell Rd. Columbus, OH 43207 614-491-3611	Masons Sand & Gravel (100)	Franklin	sand & gravel	59,782	Fn-11	IM-234
Massillon Washed Gravel Co. 6331 Blough Ave. SW P.O. Box 167 Navarre, OH 44662 216-879-2132	Massillon Washed Gravel Co. (325)	Stark	sand & gravel	222,210	Sk-607	IM-102
Maumee Haulers, Inc. 8647 Nebraska Ave. Toledo, OH 43617 419-865-5013	Nebraska Pit (193)	Lucas	sand & gravel	245,003	Ls-20	IM-888

⁴⁴No sales or production.⁴⁵No mine number has been assigned by the Division of Mines.⁴⁶No report filed in 1985.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Maumee Stone Co. 221 Allen St. P.O. Box 29A Maumee, OH 43537 419-893-8731	Maumee Stone Co. (54) Rocky Ridge (83) Maumee Stone Co. (88) Scott Quarry (121) South Montpelier (375)	Lucas Ottawa Paulding Van Wert Williams	limestone limestone limestone limestone sand & gravel	567,389 156,951 356,226 244,110 212,997	LS-2 Oa-14 Pg-2 Vt-3 Ws-6	IM-503 IM-320 IM-481 IM-495 IM-497
	North Montpelier (376) Lime City Quarry (131) Portage Quarry (132)	Williams Wood Wood	sand & gravel limestone limestone	1,975 ⁴⁷ 431,302 124,589	Ws-9 Wd 6 Wd 11	IM-498 IM-480 IM-475
Maxville Stone Co. 7957 State Rte. 668 S Logan, OH 43138 614-596-5221	Maxville Stone Co. (89)	Perry	limestone	87,861	Py-235	IM-11, IM-515
Charles H. McCarthy Quarry 6326 County Rd. 61 Upper Sandusky, OH 43351 419-294-2611	McCarthy Stone Quarry (133)	Wyandot	limestone	93,524	Wt-3	IM-298
Meade Materials R.D. 1 Box 276 Jefferson, OH 44047 216-969-1193	Meade Materials (12)	Ashtabula	sand & gravel	⁴⁹	Asa-8	IM-135
Mecco, Inc. 2504 S. Main St. Middletown, OH 45042 513-422-3651	Mecco, Inc. (39)	Butler	sand & gravel	33,341	Br-15	IM-316
Mechanicsburg Sand & Gravel, Inc. P.O. Box 18 Mechanicsburg, OH 43044 513-834-2606	Mechanicsburg Sand & Gravel, Inc. (50)	Champaign	sand & gravel	73,779	Cpn-22	IM-889
Meigs County Commissioners Rte. 2 Rocksprings Rd. Pomeroy, OH 45769 614-992-2911	Meigs County Commissioners (211)	Meigs	sand & gravel	64,568	Ms-301	IM-619
Melvin Stone Co. 228 Melvin Rd. Wilmington, OH 45177 513-584-2486	Melvin Stone Co. (17)	Clinton	limestone	158,362	Cln-1	IM-241
Therman L. Mercer 7851 Depot Rd. Rogers, OH 44455 216-227-3102	Therman L. Mercer (66)	Columbiana	sand & gravel	⁴⁹	Ca-897	IM-732
Mesenburg Bros., Inc. R.D. 1 Collins, OH 44826 419-668-5691	Mesenburg Bros., Inc. (86) Mesenburg Bros., Inc. (20)	Erie Huron	sand & gravel sandstone	13,689 37,390	Ee-24 Hrn-8	IM-593 IM-268
Miami River Stone Co. 1556 Miami River Rd. Sidney, OH 45365 513-492-5412	Miami River Stone Co. (110) Miami River Stone Co. (311)	Shelby Shelby	limestone sand & gravel	236,248 3,494	Shy-6 Shy-17	IM-389 IM-389
Mickley Gravel Co. P.O. Box J Danville, OH 43014 614-599-7870	Mickley Gravel Co. (162)	Knox	sand & gravel	2,373	Kx-5	IM-884
Middletown Sand & Gravel Co. P.O. Box 380 Middletown, OH 45042 513-422-3781	Middletown Sand & Gravel Co. (40)	Butler	sand & gravel	107,955	Br-1	IM-180
Miller Bros. Clay Works, Inc. Lock Box 162 Ottoville, OH 45876 419-453-3545	Miller Bros. Clay Works, Inc. (48)	Putnam	clay	1,850	Pm-9	
Miller Bros. Gravel, Inc. 7900 S. Kessler-Frederick Rd. Tipp City, OH 45371 513-836-0981	Miller Bros. Gravel, Inc. (233)	Montgomery	sand & gravel	135,962	My-52	IM-348
H. M. Miller Construction Co. 1225 Waterloo Rd. Mogadore, OH 44260 216-628-4811	Krumroy Pit (330)	Summit	sand & gravel	31,563	St-46	IM-557

⁴⁷Limestone sales only, no production. Limestone shipped in for sale.⁴⁸No sales or production.⁴⁹No report filed in 1985.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Miller Sand & Gravel Co. State Rte. 82 Box 60 Windham, OH 44288 216-326-3157	Miller Sand & Gravel (272)	Portage	sand & gravel	13,586	Pe-39	IM-74
Miller Sand Co. 4615 Bellevue-Castalia Rd. Castalia, OH 44824 419-684-7180	Miller Sand Co. (87)	Erie	sand & gravel	9,849	Ee-28	IM-601
Mineral Research & Recovery of Ohio, Inc. #60 4500 East Speedway Tucson, AZ 85712	Mineral Research & Recovery of Ohio, Inc. (21)	Jackson	sandstone	⁵⁰	Jkn-1018	IM-38
Mohican Materials Co. P.O. Box 1321 Mansfield, OH 44901 419-522-2521	Mohican Materials Co. (291)	Richland	sand & gravel	5,834	Rd-10	IM-469
Mohican Organic Products, Inc. Rte. 1 47 Milligan Rd. Lucas, OH 44843 419-892-2212	Mohican Pit (1)	Ashland	peat	5,868	Ald-13	
Mohican Sand & Gravel, Inc. P.O. Box 28 Perrysville, OH 44864 419-522-2521	Mohican Sand & Gravel, Inc. (292)	Richland	sand & gravel	122,194	Rd-5	IM-674
Montgomery Sand Co. Rte. 1 Plymouth, OH 44865 419-687-5081	Montgomery Sand Co. (156)	Huron	sand & gravel	⁵⁰	Hrn-8	
Moore's Excavating Co. 2222 N. State Rte. 68 Urbana, OH 43078 513-653-6288	Moore's Excavating Co. (51)	Champaign	sand & gravel	37,622	Cpn-20	IM-482
Moorman Sand & Gravel Co. 6127 Germantown Rd. P.O. Box 422 Middletown, OH 45042 513-424-1243	Moorman Sand & Gravel Co. (41)	Butler	sand & gravel	94,105	Br-6	IM-177, IM-181
Moraine Materials, Inc. 2500 East River Rd. Dayton, OH 45439 513-298-4371	Moraine Materials, Inc. (113) Moraine Materials, Inc. (114) Moraine Materials, Inc. (234) Moraine Materials, Inc. (358)	Greene Greene Montgomery Warren	sand & gravel sand & gravel sand & gravel sand & gravel	26,265 77,955 134,877 250,195	Ge-32 Ge-38 My-29 Wan-6	IM-400 IM-333 IM-399 IM-254
Morrow Gravel Co. 11641 Mosteller Rd. P.O. Box 41350 Cincinnati, OH 45241 513-771-0870	Morrow Gravel Co. (359) Morrow Gravel Co. (360) Morrow Gravel Co. (361)	Warren Warren Warren	sand & gravel sand & gravel sand & gravel	⁵⁰ ⁵⁰ ⁵⁰	Wan-14 Wan-44 Wan-MG ⁵¹	IM-852 IM-165, IM-728 IM-837
Morton Thiokol, Inc. Morton Salt Division P.O. Box 390 Painesville, OH 44077-0390 216-354-9901	Fairport Mine (2)	Lake	salt	1,700,123	Lke-6	
Morton Thiokol, Inc. Morton Salt Division 151 S. Industrial St. Rittman, OH 44270-1593 216-925-3015	Morton Salt Well Field (5)	Wayne	salt	432,172	We-9129	
Muskingum River Gravel Co. P.O. Box 14 Lockbourne, OH 43137 614-453-0721	Plant #6 (101) Muskingum River Gravel Co. (247) Plant #1 (245) Plant #4 (246) Muskingum River Gravel Co. (299) Plant #2 (367) Plant #5 (368)	Franklin Muskingum Muskingum Muskingum Muskingum Ross Washington Washington	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	⁵⁰ ⁵⁰ ⁵⁰ ⁵⁰ ⁵⁰ ⁵⁰ ⁵⁰ ⁵⁰	Fn-24 Mum-228 Mum-736 Mum-786 Rs-4 Wn-38 Wn-52	IM-266 IM-421 IM-804 IM-422 IM-663 IM-701 IM-552
National Aggregate P.O. Box 12322 Columbus, OH 43212 614-224-9211	National Aggregate (46)	Carroll	sand & gravel	⁵⁰	Cl-152	IM-641
National Lime & Stone Co. P.O. Box 120 Findlay, OH 45839-0120 419-422-4341	Lima Plants (4) Lima Plants (5) Lima Plants (6) Buckland Plant (11)	Allen Allen Allen Auglaize	limestone limestone limestone limestone	⁵² 813,423 ⁵² 230,616	An-2 An-3 An-11 Ae-10	IM-540 IM-484 IM-541 IM-486

⁵⁰No report filed in 1985.⁵¹No mine number has been assigned by the Division of Mines.⁵²All sales and production are reported under An-3.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
National Lime & Stone Co. (con't)	Wapak Sand & Gravel (24) Bucyrus Plant (18) Delaware Plant (21) Findlay Plant (35) Marion Plant (60) National Lime & Stone Co. (96) Carey Plant (134)	Auglaize Crawford Delaware Hancock Marion Putnam Wyandot	sand & gravel limestone limestone limestone limestone limestone limestone	152,016 1,063,912 738,849 542,373 366,190 ⁶³ 1,694,100	Ae-30 Cd-1 Del-5 Hk-1 Mn-3 Pm-4 Wt-1	IM-404 IM-207 IM-483 IM-168 IM-479 IM-405
Neer's Engineering Laboratories 4859 Twp. Rd. 45 Bellefontaine, OH 43311 513-585-6733	Neer's Engineering Laboratories (189)	Logan	sand & gravel	128,652	Lgn-6	IM-459
Neiheisel Sand & Gravel P.O. Box 255 Columbiana, OH 44408 216-427-2824	Neiheisel Sand & Gravel (67) Neiheisel Sand & Gravel (196)	Columbiana Mahoning	sand & gravel sand & gravel	1,539 8,894	Ca-600 Mg-NSG ⁶⁴	IM-100 IM-808
Nelson Sand & Gravel, Inc. P.O. Box 31 Kingsville, OH 44048 216-224-0198	Nelson Sand & Gravel, Inc. (13) Nelson Sand & Gravel, Inc. (14)	Ashtabula Ashtabula	sand & gravel sand & gravel	24,300 ⁶³	Asa-11 Asa-12	IM-160 IM-911
New Carlisle Sand & Gravel Co. 6090 South Scarff Rd. New Carlisle, OH 45344 513-845-0696	New Carlisle Sand & Gravel Co. (217)	Miami	sand & gravel	56	Mi-501	
New Miami Sand & Gravel, Inc. 151 Seven Mile Ave. New Miami, OH 45011 513-863-7676	New Miami Sand & Gravel, Inc. (42)	Butler	sand & gravel	45,609	Br-3	IM-719
Northern Ohio Materials, Inc. 35746 Lake Shore Blvd. Eastlake, OH 44094 216-946-8467	Northern Ohio Materials, Inc. (273) Northern Ohio Materials, Inc. (331)	Portage Summit	sand & gravel sand & gravel	185,905 13,912	Pe-85 St-41	IM-700 IM-113
Northmont Sand & Gravel Co. P.O. Box 185 Englewood, OH 45322 513-836-1998	Northmont Sand & Gravel Co. (235)	Montgomery	sand & gravel	49,337	My-49	IM-370
North Shore Stone Quarries, Inc. 72 Fernhill Ave. Columbus, OH 43228 614-878-3628	North Shore Stone Quarries, Inc. (109)	Seneca	limestone	2,663	Sa-8	IM-313
Northwood Stone & Asphalt Co. 1558 County Rd. 105 Belle Center, OH 43310 513-464-3833	Northwood Stone & Asphalt Co. (51)	Logan	limestone	123,372	Lgn-2	IM-494
Nutter Bros. Coal Co., Inc. P.O. Box 190 New Lexington, OH 43766 614-394-2678	Nutter Bros. Coal Co., Inc. (15) Nutter Bros. Coal Co., Inc. (16) Nutter Bros. Coal Co., Inc. (47)	Hocking Hocking Perry	clay clay clay	⁶³ ⁶³ ⁶³	Hg-NB1 ⁶⁴ Hg-NB2 ⁶⁴ Py-259	IM-506 IM-757 IM-80
Carl E. Oeder & Sons Sand & Gravel 3890 Turtlecreek Rd. Lebanon, OH 45036 513-494-1238	Carl E. Oeder (352)	Warren	sand & gravel	216,856	Wan-41 ⁶⁵	IM-629
Ohio Asphaltic Limestone Corp. 8591 Mad River Rd. Hillsboro, OH 45133 513-364-2191	Ohio Asphaltic Limestone Corp. (42)	Highland	limestone	179,160	Hd-3	IM-253
Ohio Lime Co. 3964 County Rd. 41 Millersville, OH 43435 419-638-2511	Plant #3 (103)	Sandusky	limestone	517,795	Sy-4	IM-381
OKI Contracting, Inc. P.O. Box 92 Moscow, OH 45153 513-553-3370	OKI Contracting, Inc. (62)	Clermont	sand & gravel	57,524	Ct-11	
Olen Corp. 1018 Proprietors Rd. Worthington, OH 43085 614-885-4220	Olen Corp. (102)	Franklin	sand & gravel	305,908	Fn-43	IM-188

⁶³No report filed in 1985.⁶⁴No mine number has been assigned by the Division of Mines.⁶⁵This mine was operated 1st quarter 1985 by Dravo Corp. and 1st through 4th quarters by Carl E. Oeder & Sons Sand & Gravel.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Oneida Sand & Gravel, Inc. 8000 Blade Rd. Malvern, OH 44644 216-343-6831	Oneida Sand & Gravel, Inc. (47)	Carroll	sand & gravel	23,757	Cl 204	IM-554
Orrville Tile Co. 821 N. Elm Orrville, OH 44667 216-682-1936	Orrville Tile Co. (72)	Wayne	clay	⁵⁶	We-9	IM-512
Osborne Materials Co. Williams St. P.O. Box 217 Grand River, OH 44045 216-357-5562	Osborne Materials Co. (2)	Lake Erie	sand & gravel (dredged)	92,121		
Oster Sand & Gravel, Inc. 5947 Whipple Rd. NW North Canton, OH 44720 216-494-5472	Oster Sand & Gravel, Inc. (326) Oster Sand & Gravel, Inc. (342)	Stark Tuscarawas	sand & gravel sand & gravel	177,962 100,364	Sk-165 Ts-1852	IM-192, IM-781 IM-75
Ottawa Stone Co., Inc. P.O. Box 27 Ottawa, OH 45875 419-456-3261	Ottawa Stone Co. (97)	Putnam	limestone	642	Pm-3	IM-535
Owens Stone Co., Inc. 1274 Ostrander Rd. Ostrander, OH 43061 614-666-7555	Owens Stone Co. (22)	Delaware	limestone	319,137	Del-3	IM-327
Parker Sand & Stone, Inc. 8034 Hill Ave. Holland, OH 43528 419-866-5886	Parker Sand & Stone, Inc. (194)	Lucas	sand & gravel	42,508	Ls-24	IM-901
Partin Sand & Gravel 4252 Taylorsville Rd. Dayton, OH 45424 513-233-9501	Partin Sand & Gravel (236)	Montgomery	sand & gravel	2,000	My-55	IM-571
R. H. Penick Co. 1504 Blue Jay Rd. Heath, OH 43056 614-323-3040	R. H. Penick Co. (3)	Licking	salt	19,888	Lg-45	
Pennsylvania Glass Sand Corp. P.O. Box 187 Berkeley Springs, WV 25411 304-258-2500	Pennsylvania Glass Sand Corp. (33) Coxey Works (42)	Portage Tuscarawas	sandstone sandstone	⁵⁶ 34,318	Pe-4 Ts-1660	IM-79 IM-68
Penry Stone Co. P.O. Box 176 Radnor, OH 43066 614-595-3473	Penry Stone Co. (23) Penry Stone Co. (198)	Delaware Marion	limestone sand & gravel	⁵⁶ ⁵⁶	Del-2 Mn-4	IM-299 IM-290
Phillips Sand & Gravel P.O. Box 71 Alpha, OH 45301 513-426-5461	Phillips Sand & Gravel (115)	Greene	sand & gravel	332,820	Ge-36	IM-305
Pifer Stone Co. P.O. Box 101 Williamstown, OH 45897 419-365-5078	Pifer Stone Co. (36)	Hancock	limestone	11,140	Hk-4	IM-489
Pine Creek Materials, Inc. 2301 Greenup Ave. Ashland, KY 41101 606-324-3185	Pine Creek Materials, Inc. (172)	Lawrence	sand & gravel	⁵⁶	Le-427	IM-784
C. F. Poeppelman Sand & Stone, Inc. 4755 N. State Rte. 721 Bradford, OH 45308 513-448-2613	C. F. Poeppelman, Inc. (67)	Miami	limestone	134,807	Mi-10	IM-335
Portage Lakes Sand & Gravel Co. 2800 N. Turkeyfoot Rd. Akron, OH 44319 216-644-2285	Portage Lakes Sand & Gravel Co. Plant #4 (332)	Summit	sand & gravel	141,976	St-33	IM-121
Prairie Lane Sand & Gravel Co. 4401 Prairie Lane Rd. Wooster, OH 44691 216-262-6821	Prairie Lane Sand & Gravel Co. (372)	Wayne	sand & gravel	116,262	We-11	IM-547

⁵⁶No report filed in 1985.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Price Sand & Gravel Div. of Price Asphalt & Paving Co. 115 Jefferson St. Norwalk, OH 44857-1994 419-668-1059	Price Sand & Gravel Pit #1 (157) Price Sand & Gravel (158)	Huron Huron	sand & gravel sand & gravel	57,531 ⁵⁷	Hrn-1 Hrn-11	IM-550 IM-742
Purdy Sand & Gravel Co. 14220 Parrott St. Ext. P.O. Box 667 Mt. Vernon, OH 43050 614-397-0000	Purdy Sand & Gravel Co. (163)	Knox	sand & gravel	50,926	Kx-3	IM-300
Puskarich Limestone Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656	Puskarich Limestone Co. (15)	Carroll	limestone	132,189	Cl-183	IM-7
Putnam Stone Co., Inc. R.R. 1 7053 Road M Ottawa, OH 45875-9754 419-523-6004	Putnam Stone Co. (98)	Putnam	limestone	144,547	Pm-2	IM-570
Quality Ready Mix, Inc. R.R. 5 Box 12 Wapakoneta, OH 45895 419-738-6010	Quality Ready Mix, Inc. (25)	Auglaize	sand & gravel	15,487	Ae-16	IM-595
Queen City Gravel Co. 5050 Orchard St. Cincinnati, OH 45212 513-531-6214	Queen City Gravel Co. (138)	Hamilton	sand & gravel	⁵⁷	Hmn-16	IM-272
R & R Aggregates, Inc. P.O. Box 863 Chillicothe, OH 45601 614-774-6700	R & R Aggregates, Inc. (300)	Ross	sand & gravel	4,753	Rs-23	IM-875
Rack Sand, Inc. 5175 Este Ave. Cincinnati, OH 45232 513-242-5052	Rack Sand, Inc. (139)	Hamilton	sand & gravel	66,886	Hmn-10	IM-226
Ramsier Sand & Gravel 113 Howe St. Lodi, OH 44254 216-948-1749	Ramsier Sand & Gravel (205)	Medina	sand & gravel	⁵⁷	Ma-12	IM-516
Rialto Farms 1690 Owens Rd. W Marion, OH 43302 614-387-6754	Rialto Farms (199)	Marion	sand & gravel	125	Mn-17	IM-460
Richards & Son, Inc. P.O. Box 232 Pomeroy, OH 45769 614-247-2311	Richards & Son, Inc. (212)	Meigs	sand & gravel	443,356	Ms-298	IM-32
Richland Brick Co. P.O. Box 457 Mansfield, OH 44901 419-524-6611	Richland Brick Co. (49)	Richland	shale	⁵⁷	Rd-13	IM-431
Ridge Township Quarry R.R. 1 Box 263 Van Wert, OH 45891 419-238-2533	Ridge Township Quarry (122)	Van Wert	limestone	50,567	Vt-7	IM-642
Ries Sand & Gravel 169 State Rte. 95 Jeromesville, OH 44840 419-368-7833	Ries Sand & Gravel (6)	Ashland	sand & gravel	8,405	Ald-9	IM-745
Riverside Sand & Gravel Co., Inc. P.O. Box 324 Tallmadge, OH 44278-0324 216-673-2021	Riverside Sand & Gravel (Acken) (333)	Summit	sand & gravel	77,782	St-24	IM-239
Rockford Stone Co. 3491 U.S. Rte. 33 Rockford, OH 45882 419-363-3392	Rockford Stone Co. (63)	Mercer	limestone	48,999	Mr-2	IM-430
L. G. Rockhold & Sons, Inc. 28541 State Rte. 739 West Mansfield, OH 43358 513-358-2224	L. G. Rockhold & Sons, Inc. (119)	Union	limestone	96,317	Un-1	IM-208

⁵⁷No sales or production.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Rockport Sand & Gravel Co., Inc. 9215 Rock St. Columbus Grove, OH 45830 419-358-5846	Rockport Sand & Gravel Co., Inc. (1) Rockport Sand & Gravel Co., Inc. (2) Rockport Sand & Gravel Co., Inc. (178)	Allen Allen Licking	sand & gravel sand & gravel sand & gravel	59,062 16,326 ⁵⁸	An-14 An-15 Lg-35	IM-523 IM-721 IM-734
Romany Ceramics, Inc. 19233 Sandyville Rd. SE East Sparta, OH 44626 216-866-5531	Romany Ceramics, Inc. (55)	Stark	shale	4,040	Sk-170	IM-365
Rubber City Sand & Gravel Co. P.O. Box 7126 Akron, OH 44306 216-699-3311	Knight Plant (334)	Summit	sand & gravel	5,836	St-9	IM-167
Ruggles Stone Co. 9386 State Rte. 41 Aberdeen, OH 45101 513-375-3278	Ruggles Stone Co. (27) Ruggles Stone Co. (148)	Brown Highland	sand & gravel sand & gravel	⁵⁹ ⁵⁹	Bn 5 Hd-7	IM-276 IM-315
Rupp Construction, Inc. 18228 Fulton Rd. Marshallville, OH 44645 216-855-2781	Rupp Construction, Inc. (373)	Wayne	sand & gravel	275,800	We-7	IM-471
S & W Cement Contractors, Inc. 1289 Dequincy Dr. Xenia, OH 45385 513-426-1423	S & W Cement Contractors, Inc. (116)	Greene	sand & gravel	⁵⁸	Ge-39	
SME Bessemer Cement, Inc. P.O. Box 5250 Poland, OH 44515 216-499-9100	SME Limestone (58) (33) Quarry #8 (57) (34)	Mahoning Mahoning	limestone clay limestone shale	⁵⁸ ⁵⁸ 2,233,889 95,408	Mg-507 Mg-608	IM-8 IM-4
SME Cement, Inc. 8282 Middle Rd. P.O. Box 234 Middlebranch, OH 44562 216-499-9100	#2 Pit (54) (54) #3 Pit (115)	Stark Stark	clay shale limestone	⁵⁸ ⁵⁸ ⁵⁸	Sk-204 Sk-222	IM-726 IM-819
S S Aggregates P.O. Box 96 Haydenville, OH 43127 419-385-4095	S S Aggregates (152)	Hocking	sand & gravel	⁵⁹	Hg-301	IM-458
Salt Creek Materials 880 Spry Rd. Zanesville, OH 43701 614-872-3860	Salt Creek Materials (248) Salt Creek Materials (249)	Muskingum Muskingum	sand & gravel sand & gravel	22,882 ⁵⁸	Mum-216 Mum-220	IM-689 IM-623
Samco, Inc. 10217 State Rte. 534 N Middlefield, OH 44062 216-272-5158	Samco, Inc. (340)	Ashtabula, Trumbull	sand & gravel	315,776	Tl-12 ⁶⁰	IM-131
Homer Sammet Trucking R.R. 5 Upper Sandusky, OH 43351 419-294-1342	Homer Sammet Trucking (383)	Wyandot	sand & gravel	⁵⁹	Wt-13	IM-618
Sandkuhl Tile Co. R.R. 1 Spencerville, OH 45887 419-647-4131	Sandkuhl Tile Co. (2)	Auglaize	clay	2,886	Ae-7	
Sandusky Crushed Stone Co., Inc. P.O. Box 527 Sandusky, OH 44870 419-625-8493	Sandusky Crushed Stone Co., Inc. (25)	Erie	limestone	1,909,065	Ee-11	IM-263
Earl H. Schilling & Son R.D. 2 Box 326 Ironton, OH 45638 614-532-8463	Earl H. Schilling & Son (305)	Scioto	sand & gravel	⁵⁸	So-78	
The Schloss Paving Co. 13700 McCracken Rd. Cleveland, OH 44125 216-587-4900	Schloss Paving Co. (274)	Portage	sand & gravel	70,384	Pe-60	IM-78
J. J. Scott Co. 153 North Gambel Shelby, OH 44875 419-342-5361	Ganges Gravel (289)	Richland	sand & gravel	⁵⁹	Rd-18	IM-670

⁵⁸No sales or production.⁵⁹No report filed in 1985.⁶⁰All sales and production are from Trumbull County.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Seaway Sand & Stone, Inc. 2190 Whitehouse-Spencer Rd. Swanton, OH 43558 419-865-5751	Seaway Sand & Stone (195)	Lucas	sand & gravel	33,774	Ls-13	IM-492
Seville Sand & Gravel, Inc. 8215 Seville Rd. Seville, OH 44273 216-948-1812	Seville Sand & Gravel, Inc. (207) Seville Sand & Gravel, Inc. (206)	Medina Medina	sand & gravel sand & gravel	⁶¹ 245,505	Ma-9 Ma-22	IM-425 IM-650, IM-651
R. W. Sidley, Inc. 615 W. Main St. Conneaut, OH 44030 216-298-3232	Conneaut Pit (15) R. W. Sidley, Inc. (16)	Ashtabula Ashtabula	sand & gravel sand & gravel	7,675 ⁶¹	Asa-15 Asa-RWS ⁶²	IM-783 IM-219, IM-233
R. W. Sidley, Inc. 7123 Madison Rd. Thompson, OH 44086 216-298-3232	R. W. Sidley, Inc. Sandstone Quarry (18) Painesville Plant (166)	Geauga Lake	sandstone sand & gravel	218,733 26,306	Gea-1 Lke-7	IM-163 IM-162
Sidney Sand & Gravel Co. P.O. Box 379 Sidney, OH 45365 513-492-3125	Sidney Sand & Gravel Co. (313) Milligan & Milligan-Washington Twp. Pit (312) Rock Run Quarry (111)	Shelby Shelby Shelby	sand & gravel sand & gravel limestone	⁶³ 83,493 29,230	Shy-7 Shy-13 Shy-16	IM-438 IM-412 IM-411
Silchuk Gravel Co. 2470 Wall Rd. Rittman, OH 44270 216-336-8796	Silchuk Gravel Co. (208)	Medina	sand & gravel	⁶³	Ma-16	
Silver Arrow Systems, Inc. 7730 Bond St. Solon, OH 44139 216-439-3100	Silver Arrow Systems, Inc. (76)	Cuyahoga	sand & gravel	44,863	Cya-26	IM-683
Simanton Sand Co. P.O. Box 387 Norwalk, OH 44857 419-668-2952	Simanton Sand Co. (7)	Ashland	sand & gravel	22,404	Ald-11	IM-543
Skidmore & Chah, Inc. 3845 E. University Dr. Phoenix, AZ 85034 602-437-0343	Amboy Pit (17)	Ashtabula	sand & gravel	⁶³	Asa-13	IM-785
Small's Sand & Gravel, Inc. 20420 Zion Rd. P.O. Box 617 Gambier, OH 43022 614-427-4096	Small's Sand & Gravel, Inc. (164) Small's Sand & Gravel, Inc. (165)	Knox Knox	sand & gravel sand & gravel	71,204 101,859	Kx-8 Kx-15	IM-267
Sober Sand & Gravel Co. 2898 Tallmadge Rd. Ravenna, OH 44266 216-325-7013	Sober Sand & Gravel Co. (275)	Portage	sand & gravel	⁶³	Pe-18	IM-193
Soehnlén Sand & Gravel Co. R.D. 1 Beach City, OH 44608 216-756-2244	Soehnlén Bros. Sand & Gravel Co. (343)	Tuscarawas	sand & gravel	43,133	Ts-1826	IM-88
Solon Excavators Sand & Gravel, Inc. 3583 Frost Rd. Mantua, OH 44255 216-274-8241	Solon Excavators Sand & Gravel, Inc. (276)	Portage	sand & gravel	205,196	Pe-36	IM-90
Somerset Lime & Stone, Inc. 10610 Stone Quarry Rd. Somerset, OH 43783 614-452-8335	Somerset Lime & Stone, Inc. (90)	Perry	limestone	⁶³	Py-266	IM-166
Southern Hills Supply, Inc. 2101 W. Dorothy Lane Dayton, OH 45439 513-298-7215	Southern Hills Supply, Inc. (237)	Montgomery	sand & gravel	⁶³	My-59	IM-627
Southern Ohio Aggregates 11641 Mosteller Rd. Cincinnati, OH 43113 513-771-0820	Southern Ohio Aggregates (284)	Preble	sand & gravel	⁶¹	Pre-7	IM-306
Southern Silica, Inc. P.O. Box 22 Richmond Dale, OH 45673 614-884-4721	Southern Silica, Inc. (34)	Ross	sandstone	169,396	Rs-16	IM-172

⁶¹No report filed in 1985.⁶²No mine number has been assigned by the Division of Mines.⁶³No sales or production.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Southwestern Portland Cement Co. Eastern Division 506 E. Xenia Rd. P.O. Box 191 Fairborn, OH 45324 513-878-8651	Southwestern Portland Cement Co. (33) Southwestern Portland Cement Co. (10) Southwestern Portland Cement Co. (34) Southwestern Portland Cement Co. (72)	Clark, Greene Greene Greene Montgomery	limestone clay limestone limestone	823,897 192,754 ⁶⁵ 168,843	Ge-1 ⁶⁴ Ge-8 Ge-9 My-58	IM-393 IM-364 IM-364 IM-330
Sphagnum Moss Peat Farm 9797 Thompson Rd. West Liberty, OH 43357 513-653-7337	Sphagnum Moss Peat Farm (2)	Champaign	peat	21,252	Cpn-9	
Raleigh Spradlin Gravel Co. 622 Swackhammer Rd. Circleville, OH 43113 614-474-6722	John N. Bowers Pit (250)	Pickaway	sand & gravel	⁶⁶	Pky-2	IM-490, IM-565
Spring Creek Corp. 4723 Hardin-Wapak Rd. Sidney, OH 45365 513-492-9697	Pence (314) Quarry (112) Jones Deposit (315)	Shelby Shelby Shelby	sand & gravel limestone sand & gravel	106,000 105,848 44,000	Shy-11 Shy-15 Shy-18	IM-743 IM-387 IM-388
Spring Industries P.O. Box 507 New Philadelphia, OH 44663 216-339-3585	Newcomerstown Plant (72) Sandyville Pit ⁶⁷ Midvale Pit (344) County Line Plant (345)	Coshocton Tuscarawas Tuscarawas Tuscarawas	sand & gravel sand & gravel sand & gravel sand & gravel	13,873 2,893 283,562 15,810	Cn-624 Ts-515 Ts-1771 Ts-1788	IM-243 IM-77 IM-73
Spring Valley Investments, Inc. 2800 Turkeyfoot Rd. Akron, OH 44319 216-644-2285	Spring Valley Investments, Inc. (335)	Summit	sand & gravel	⁶⁵	St-26	IM-803
Springfield Sand & Gravel Co. 4301 S. Charleston Pike Springfield, OH 45502 513-325-7386	Springfield Sand & Gravel Co. (58)	Clark	sand & gravel	296,899	Ck-25	IM-358
Standard Slag Co. 1200 Stambaugh Bldg. P.O. Box 1378 Youngstown, OH 44501 216-743-3151	Adams (2) Forest (39) Marblehead (84) Cutlip (255) Shalersville (277) Shalersville Portable (278) Haverhill (306)	Adams Hardin Ottawa Pike Portage Portage Scioto	limestone limestone limestone sand & gravel sand & gravel sand & gravel sand & gravel	257,584 6,105 906,352 359,612 743,225 ⁶⁵ 180,252	Ads-6 Hdn-1 Oa-7 Pke-24 Pe-68 Pe-SS1 ⁶⁸ So-79	IM-659 IM-488 IM-440 IM-222 IM-143, IM-687 IM-660 IM-221
Steetley Resources, Inc. Main St. Woodville, OH 43469 419-849-2321	Ohio Lime Co. (104) Ohio Lime Co. (105)	Sandusky Sandusky	limestone limestone	⁶⁵ 802,609	Sy-3 Sy-8	IM-282 IM-249
Stewart & Reichman, Inc. Rte. 1 Box 64 Gnadenhütten, OH 44629 614-922-0050	Stewart & Reichman, Inc. (346)	Tuscarawas	sand & gravel	31,565	Ts-111	IM-55
Stocker Sand & Gravel Co. P.O. Box 176 Gnadenhütten, OH 44629 614-254-4635	Stocker Sand & Gravel Co. (347) Stocker Sand & Gravel Co. (348)	Tuscarawas Tuscarawas	sand & gravel sand & gravel	210,434 214,842	Ts-69 Ts-125	IM-51 IM-50
Stone Creek Brick Co. P.O. Box 116 Stone Creek, OH 43840 216-339-5511	Stone Creek Brick Co. Clay Mine (67) Stone Creek Brick Co. Shale Mine (67)	Tuscarawas Tuscarawas	clay shale	54,280 6,689	Ts-1557 Ts-1558	IM-52 IM-52
Sturm & Dillard Co. P.O. Box 107 Circleville, OH 43113 614-837-9067	Sturm & Dillard Co. (251)	Pickaway	sand & gravel	312,215	Pky-1	IM-409, IM-428, IM-668
Suever Stone Co., Inc. Bloomlock Rd. P.O. Box 67 Delphos, OH 45833 419-692-0931	Suever Stone Co. (7) Suever Stone Co. (123)	Allen Van Wert	limestone limestone	69,821 149,862	An-4 Vt-1	IM-491 IM-500
Sugar Creek Stone Quarry, Inc. P.O. Box 584 Washington Court House, OH 43160-0637 614-335-6301	Sugar Creek Stone Quarry, Inc. (29)	Fayette	limestone	74,407	Fe-3	IM-329

⁶⁴All sales and production are from Greene County.⁶⁵No sales or production.⁶⁶No report filed in 1985.⁶⁷No location given. Operation was abandoned 3rd quarter 1985.⁶⁸No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Sugarcreek Clay & Limestone, Inc. P.O. Box 402 Sugarcreek, OH 44681 216-852-4440	Sugarcreek Clay & Limestone, Inc. (118) Sugarcreek Clay & Limestone, Inc. (69) (69)	Tuscarawas	limestone clay shale	23,367 ⁶⁹ 14,274	Ts-1928	IM-98
Summitville Tiles, Inc. Summitville, OH 43962 216-223-1511	Summitville Tiles, Inc. (5)	Columbiana	shale	67,225	Ca-205	IM-74
T & J Sand & Gravel, Inc. 7450 Dryfork Rd. Cleves, OH 45002 513-367-6101	T & J Sand & Gravel, Inc. (140)	Hamilton	sand & gravel	89,774	Hmn-58	IM-840
Tarbox-McCall Stone Co. Div. of Hancock Ready Mix, Inc. 852 Western Ave. Findlay, OH 45840 419-422-1912	Tarbox-McCall Stone Co. (37)	Hancock	limestone	234,790	Hk-2	IM-439
Taylor Stone Co., Inc. P.O. Box 186 McDermott, OH 45652 614-259-2361	Taylor Quarry (35)	Scioto	sandstone	⁶⁹	So-47	IM-251
Teague Gravel Co., Inc. 10924 Kinsman Rd. Newbury, OH 44065 216-564-5671	Teague Gravel Co., Inc. (109)	Geauga	sand & gravel	18,113	Gea-35	IM-321
Terra Vista Sand & Gravel Co. 11201 Tinkers Creek Rd. Cleveland, OH 44125 216-464-0903	Terra Vista Sand & Gravel (77) Terra Vista Sand & Gravel (280)	Cuyahoga Portage	sand & gravel sand & gravel	6,500 ⁶⁹	Cya-31 Pe-64	IM-603 IM-229
Thompson Bros. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 216-549-3979	Thompson Bros. Mining Co. (35)	Mahoning	clay	⁷⁰	Mg-588	
Three Locks Construction Co. P.O. Box 88 Chillicothe, OH 45601 614-774-4689	N-3 (293)	Ross	sand & gravel	84,074	Rs-19	IM-620
Three Rivers Sand & Gravel, Inc. 400 Cooper Ave. Cleves, OH 45002 513-241-2929	Three Rivers Sand & Gravel, Inc. (141)	Hamilton	sand & gravel	11,180	Hmn-28	IM-353
Tipp Sand & Gravel Co. P.O. Box 367 Troy, OH 45373 513-890-4051	Tipp Sand & Gravel Co. (238)	Montgomery	sand & gravel	⁷⁰	My-61	IM-468
Tipp Stone Co., Inc. P.O. Box 367 Troy, OH 45373 513-890-4051	Tipp Stone Co., Inc. (68) Tipp Stone Co., Inc. (218)	Miami Miami	limestone sand & gravel	⁷⁰ ⁷⁰	Mi-12 Mi-14	IM-467 IM-467
Towne Square Products 156 E. Broadway Westerville, OH 43081 614-882-6990	Towne Square Products (41)	Noble	shale	130	Ne-66	IM-664
Tri County Limestone Co. 4664 Hardin-Marion Rd. Kenton, OH 43326 419-675-7127	Tri County Limestone Co. (61)	Marion	limestone	113,024	Mn-1	IM-250
Tri County Sand & Gravel 1001 N. Third St. P.O. Box 303 Hamilton, OH 45012 513-867-1633	Tri County Sand & Gravel (43)	Butler	sand & gravel	30,000	Br-54	
Tri-State Asphalt Products P.O. Box 160 Martins Ferry, OH 43935 614-633-2331	Tri-State Asphalt Products (26)	Belmont	sand & gravel	237,432	Bt-74	IM-288
Trout Sand & Gravel Co. Rte. 4 Marietta, OH 45750 614-373-7471	Trout Sand & Gravel Co. (369)	Washington	sand & gravel	47,359	Wn-510	IM-25

⁶⁹No sales or production.
⁷⁰No report filed in 1985.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Troy Gravel Co. P.O. Box 440 Tipp City, OH 45371 513-667-4431	Troy Gravel Co. (219)	Miami	sand & gravel	250,050	Mi-3	IM-462
Twin Lakes Sand, Inc. 2307 State Rte. 303 Streetsboro, OH 44240 216-626-3016	Twin Lakes Sand, Inc. (281) Twin Lakes Sand, Inc. (282) Twin Lakes Sand, Inc. (337) Twin Lakes Sand, Inc. (338) Twin Lakes Sand, Inc. (336)	Portage Portage Summit Summit Summit	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	139,000 85,608 ⁷¹ 300 34,868	Pe-59 Pe-67 St-29 St-32 St-44	IM-210 IM-202 IM-203 IM-178
USG Industries, Inc. 21880 W. State Rte. 163 Genoa, OH 43430-0158 419-855-8336	USG Industries, Inc. (85)	Ottawa	limestone	225,424	Oa-1	IM-292
Union Aggregates Co. 8328 Watkins Rd. P.O. Box 178 Ostrander, OH 43061 614-666-5841	Prospect Sand & Gravel Plant (200) Green Camp Gravel Plant (201) Union Limestone Plant (120)	Marion Marion Union	sand & gravel sand & gravel limestone	30,281 7,270 438,142	Mn-10 Mn-12 Un-2	IM-196 IM-197 IM-236
Union Slag Corp. P.O. Box 652 Marietta, OH 45750 614-373-5436	Union Slag Plant #3 (370) Union Slag Plant #2 (371)	Washington Washington	sand & gravel sand & gravel	33,209 45,833	Wn-43 Wn-44	IM-61 IM-63
Valley Gravel Co. P.O. Box 440 Tipp City, OH 45371 513-667-4431	Valley Gravel Co. (220)	Miami	sand & gravel	214,631	Mi-8	IM-355
Van Wey Sand & Gravel, Inc. 6824 Mt. Vernon Rd. NE Newark, OH 43055 614-745-5965	Van Wey Sand & Gravel, Inc. (179)	Licking	sand & gravel	183,642	Lg-10	IM-217
Wagner Quarries Co. 4203 Milan Rd. Sandusky, OH 44870 419-625-8141	Wagner Quarries Co. (26)	Erie	limestone	1,025,983	Ee-1	IM-310
Waller Bros. Stone Co. P.O. Box 157 McDermott, OH 45652 614-259-2356	Inskeep Quarry (36) Crabtree Quarry (37) Miller Quarry (38)	Scioto Scioto Scioto	sandstone sandstone sandstone	2,307 2,661 ⁷¹	So-48 So-76 So-82	IM-140 IM-141 IM-158
Walter's Gravel 11302 National Rd. SE Thornville, OH 43076 614-323-0783	Walter's Gravel (26) Walter's Gravel (180)	Licking Licking	sandstone sand & gravel	⁷¹ ⁷¹	Lg-22 Lg-15	
Wapak Sand & Gravel Co. 711 Frank Rd. Columbus, OH 43223 419-586-4228	Agg Rok (94)	Franklin	sand & gravel	327,082	Fn-36	IM-302
Wartko Sand & Gravel, Inc. 1060 Etter Rd. Mogadore, OH 44260 216-628-4864	Wartko Sand & Gravel, Inc. (283)	Portage	sand & gravel	⁷¹	Pe-81	IM-283
Waterloo Coal Co., Inc. P.O. Box 177 Oak Hill, OH 45656 614-682-7787	Zoar (47) (23)	Jackson	limestone clay	490,029 44,596	Jkn-367	IM-774, D-0163, D-0273, D-0286
Watson Gravel, Inc. P.O. Box 277 Ross, OH 45061 513-863-0070	Watson Pit (44) Harrison Pit (142) Mason Pit (363)	Butler Hamilton Warren	sand & gravel sand & gravel sand & gravel	293,537 295,627 174,588	Br-47 Hmn-60 Wan-10	IM-111 IM-761 IM-465
Weaver's Peat Co. c/o Weaver's Lawn & Garden Products, Inc. P.O. Box 333 Bowling Green, OH 43402 419-352-8429	Weaver's Peat Co. (3)	Logan	peat	⁷¹	Lgn-33	
Weber Sand & Gravel P.O. Box 116 Reedsville, OH 45772 614-378-6293	Weber Sand & Gravel (213)	Meigs	sand & gravel	8,410	Ms-287	IM-33

⁷¹No sales or production.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
Weber Sand & Gravel, Inc. R.D. 1 Edgerton, OH 43517 419-298-2592	Weber Sand & Gravel, Inc. (377)	Defiance, Williams	sand & gravel	147,262	Ws-11 ⁷²	IM-509, IM-611
Weidle Sand & Gravel, Inc. P.O. Box 247 Germantown, OH 45327 513-855-4501	Weidle Sand & Gravel, Inc. (239)	Montgomery	sand & gravel	121,068	My-41	IM-360
Welch Sand & Gravel, Inc. 10217 Columbia St. Harrison, OH 45030-9751 513-353-3220	Schlichter Pit (45) Fernald Pit (143) East Miami Pit (144) Hooven Pit (145) Welch Sand & Gravel, Inc. (146)	Butler Hamilton Hamilton Hamilton Hamilton	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	162,538 ⁷³ 293,763 100 ⁷⁴	Br-38 Hmn-42 Hmn-48 Hmn-49 Hmn-W ⁷⁵	IM-218 IM-823 IM-220 IM-176 IM-224
Wentz Concrete & Supply, Inc. R.D. 3 Newcomerstown, OH 43832 614-498-7788	Wentz Concrete & Supply, Inc. (73)	Coshocton	sand & gravel	⁷⁴	Cn-647	IM-753
White Bros. Sand, Inc. 1845 Collingwood Blvd. Toledo, OH 43695 419-243-2121	White Bros. Sand, Inc. (3)	Maumee Bay, Maumee River	sand & gravel (dredged)	141,695		
Whitehall Farms, Inc. 315 Academy St. Box 335 Green Springs, OH 44836 419-639-2943	Whitehall Farms, Inc. (302)	Sandusky	sand & gravel	1,600	Sy-18	
George E. Williams Excavating, Inc. 775 Cherokee Dr. Lancaster, OH 43130 614-653-9070	George E. Williams Excavating, Inc. (93)	Fairfield	sand & gravel	⁷³	Fd-6	
Winzeler Excavating Co. Center St. Bryan, OH 43506 419-636-4285	Winzeler Excavating Co. (190) Dennis Winzeler (378)	Logan Williams	sand & gravel sand & gravel	5,498 ⁷³	Lgn-38 Ws-14	IM-881 IM-614
John Wise Gravel Co. 8535 W. Klinger Rd. Covington, OH 45318 513-473-3246	John Wise Gravel (221)	Miami	sand & gravel	5,662	Mi-9	IM-408
Woodville Concrete Corp. 7131 W. Fenner Rd. Ludlow Falls, OH 45339 513-698-4156	Woodville Concrete Corp. (222)	Miami	sand & gravel	⁷³	Mi-4	IM-472
Wright Sand Pit 3632 South State Rte. 231 Tiffin, OH 44883 419-447-5346	Wright Sand (307)	Seneca	sand & gravel	2,576	Sa-11	IM-561
Wyandot Dolomite, Inc. P.O. Box 126 Carey, OH 43316-0126 419-396-7641	Wyandot Dolomite, Inc. (135)	Wyandot	limestone	904,679	Wt-8	IM-273
Wysong Gravel Co. 5040 Wolfe Creek Pike P.O. Box 5 Dayton, OH 45426-0005 513-962-2559	Camden Plant (285) West Alexandria Plant (286)	Preble Preble	sand & gravel sand & gravel	80,549 86,623	Pre-4 Pre-6	IM-477 IM-478
Wysong Stone Co. 5897 State Rte. 503 N Lewisburg, OH 45338 513-962-2559	Wysong Stone Co. (95)	Preble	limestone	35,672	Pre-5	IM-447
X L Sand & Gravel P.O. Box 157 Negley, OH 44441 216-426-9876	X L Sand & Gravel (68)	Columbiana	sand & gravel	⁷³	Ca-881	IM-611
Xenia Sand, Gravel, & Asphalt Paving Co. Dayton-Xenia Rd. P.O. Box 10 Xenia, OH 45385 513-372-2736	Xenia Sand, Gravel, & Asphalt Paving Co. (117)	Greene	sand & gravel	1,200	Ge-10	IM-518

⁷²All sales and production are from Williams County.⁷³No sales or production.⁷⁴No report filed in 1985.⁷⁵No mine number has been assigned by the Division of Mines.

1985 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS—Continued

Name, address, and telephone number of operator	Name of mine (and map location number)	County	Commodity	1985 sales (tons)	State mine number	Division of Reclamation permit number
York Road Gravel Co. 8819 York Rd. SW Pataskala, OH 43062 614-927-2821	York Road Gravel Co. (181)	Licking	sand & gravel	19,741	Lg-38	IM-695
Young's Sand & Gravel Co. 689 State Rte. 39 W Box 117 Loudonville, OH 44842 419-994-3040	Young's Sand & Gravel Co. (8)	Ashland	sand & gravel	200,772	Ald-7	IM-392
Zerger's Quarry 100 N. Sycamore St. Woodsfield, OH 43793 614-472-1675	Zerger's Quarry (80)	Monroe, Noble	limestone	6,046	Ne-86	IM-70
Zoar Mining Co. P.O. Box 550 Zoar, OH 44697 216-223-1511	Zoar Mining Co. (70)	Tuscarawas	clay	2,348	Ts-538	IM-27
	Zoar Mining Co. (71)	Tuscarawas	shale clay	4,738 27,370	Ts-540	IM-28
Zollinger Sand & Gravel Co. 11899 Easton Rd. Rittman, OH 44270 216-855-2464	Zollinger Sand & Gravel Co. (374)	Wayne	sand & gravel	215,001	We-15	IM-398

1985 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Adams	Davon, Inc.	Plum Run Stone Division	Meigs	Peebles, Greenfield, & Tymochtee Dolomites (Silurian)	crushed stone—riprap, metallurgical stone, stone for portland cement concrete, building, road base, resurfacing stone, railroad ballast; rock dust	Ads-1
	Standard Slag Co.	Adams	Franklin	Silurian	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone	Ads-6
Allen	Bluffton Stone Co.	Bluffton Stone Co.	Richland	Tymochtee Dolomite (Silurian)	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, farm, street repair; aglime	An-1
	National Lime & Stone Co.	Lima Plants	Bath	Silurian	crushed stone—riprap, building, road base, resurfacing stone, railroad ballast, flux stone; aglime	An-3
	Suever Stone Co., Inc.	Suever Stone Co.	Spencer	Tymochtee Dolomite (Silurian)	crushed stone—stone for bituminous concrete, building, road base, resurfacing stone; aglime	An-4
Athens	Diamond Stone Quarries, Inc.	Plant No. 1	Lee	Brush Creek limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	As-532
		Plant No. 2	Lee	Brush Creek limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	As-533
Auglaize	Con-Ag, Inc.	Con-Ag, Inc.	Noble	Cedarville Dolomite (Silurian)	crushed stone—riprap, building, road base, resurfacing stone	Ae-31
	National Lime & Stone Co.	Buckland Plant	Moulton	Silurian	crushed stone—riprap, building, road base, resurfacing stone, railroad ballast; aglime	Ae-10
Belmont	Ayers Limestone Quarry, Inc.	Ayers Limestone Quarry	Pease	Permian	crushed stone—riprap, building, road base, resurfacing stone	Bt-716
	Cravat Coal Co.	Dover Pit	York	Fishpot limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Bt-119
Brown	Brown County Highway Dept.	Brown County Rock Crusher	Lewis	Ordovician	crushed stone—building, road base, resurfacing stone	Bn-1
Carroll	Puskarich Limestone Co.	Puskarich Limestone Co.	Lee	Pennsylvanian	crushed stone—building, road base, resurfacing stone	Cl-183
Clark	American Aggregates Corp.	Springfield #223	Springfield	Cedarville Dolomite (Silurian)	crushed stone—building, road base, resurfacing stone	Cl-1
Clinton	Melvin Stone Co.	Melvin Stone Co.	Richland	Guelph Dolomite (Silurian)	crushed stone—riprap, building, road base, resurfacing stone; aglime	Cln-1
Crawford	National Lime & Stone Co.	Bucyrus Plant	Holmes	Devonian	crushed stone—riprap, stone for bituminous concrete, building, road base, resurfacing stone, railroad ballast, flux stone, extenders, fillers; stone for portland cement manufacture; aglime	Cd-1
	American Aggregates Corp.	Fort Jefferson #424	Butler	Cedarville Dolomite (Silurian)	crushed stone—building, road base, resurfacing stone	Dke-1
Darke	American Aggregates Corp.	Shawnee #225	Concord	Columbus & Delaware Limestones (Devonian)	crushed stone—building, road base, resurfacing stone	Del-4
Delaware	National Lime & Stone Co.	Delaware Plant	Scioto	Columbus & Delaware Limestones (Devonian)	crushed stone—riprap, building, road base, resurfacing stone, railroad ballast, flux stone; aglime	Del-5
	Owens Stone Co., Inc.	Owens Stone Co.	Scioto	Columbus Limestone (Devonian)	crushed stone—building, road base, resurfacing stone; aglime	Del-3
	Erie Blacktop, Inc. Sandusky Crushed Stone Co., Inc.	Erie Blacktop, Inc. Sandusky Crushed Stone Co., Inc.	Margaretta Grotton	Columbus & Delaware Limestones (Devonian)	crushed stone—riprap crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, railroad ballast, other; aglime; stone sand, stone concrete blocks, stone septic tanks	Ee-27 Ee-11

Fayette	Wagner Quarries Co.	Wagner Quarries Co.	Perkins	upper Columbus & Delaware Lime stones (Devonian)	crushed stone—building, road base, resurfacing stone	Ee 1
	American Aggregates Corp.	Blue Rock Limestone #222	Perry	Tymochtee Dolomite (Silurian)	crushed stone—building, road base, resurfacing stone	Fe 2
	Limestone, Inc.	Limestone, Inc.	Green Perry, Union	Tymochtee Dolomite (Silurian)	aglime dimension stone	Fe-1 Fe 3
Franklin	American Aggregates Corp.	Sugar Creek Stone Quarry, Inc.	Marion	Greenfield Dolomite (Silurian)	crushed stone—building, road base, resurfacing stone	Fn-53
		Columbus Limestone #221	Norwich	Columbus Limestone (Devonian)	crushed stone—building, road base, resurfacing stone	Fn-2
Greene		Marble Cliff #224	Cedarville	Columbus & Delaware Limestones (Devonian)	crushed stone—building, road base, resurfacing stone	Ge-17
	American Aggregates Corp.	Cedarville Limestone #423	Bath	Cedarville Dolomite (Silurian)	crushed stone—building, road base, resurfacing stone for portland cement manufacture	Ge-1
	Southwestern Portland Cement Co.	Southwestern Portland Cement Co.	Liberty	upper Brassfield Limestone (Silurian)	crushed stone—riprap, building, road base, resurfacing stone, railroad ballast	Hk-1
Hancock	National Lime & Stone Co.	Findlay Plant	Madison	Silurian	crushed stone—building, road base, resurfacing stone; other	Hk-4
	Pifer Stone Co.	Pifer Stone Co.	Liberty	Tymochtee Dolomite (Silurian)	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, railroad ballast	Hk-2
	Tarbox-McCall Stone Co.	Tarbox-McCall Stone Co.		Greenfield Dolomite (Silurian)	crushed stone—riprap, building, road base, resurfacing stone	Hdn-2
Hardin	Hardin Quarry Co., Inc.	Hardin Quarry Co., Inc.	Pleasant Jackson	Tymochtee Dolomite (Silurian)	crushed stone—riprap, building, road base, resurfacing stone; aglime	Hdn-1
	Standard Slag Co.	Forest	Hamer	Silurian	crushed stone—building, road base, resurfacing stone	Hd 2
Highland	Davon, Inc.	Highland Stone Division	Union	Brassfield & Dayton Limestones (Silurian)	crushed stone—riprap, metallurgical stone, stone for portland cement concrete, building, road base, resurfacing stone; aglime	Hd-3
	Ohio Asphaltic Limestone Corp.	Ohio Asphaltic Limestone Corp.	Marshall	Putnam Hill limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Hd-4
Holmes	Marshall Quarry, Inc.	Marshall Quarry, Inc.	Hardy	Putnam Hill limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Hs-67
	Holmes Limestone Co.	241 Plant	Prairie	Vanport limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Hs-79
Jackson	D & J Energy, Inc.	Wayne Mine	Bloomfield Bloomfield, Madison	Vanport limestone (Pennsylvanian)	crushed stone—unspecified	Jkn-583 Jkn-367
	Waterloo Coal Co., Inc.	Zoar	Perry Richland		crushed stone—building, road base, resurfacing stone	Lgn-1 Lgn 15
Logan	Connolly Construction Co., Inc.	East Liberty Quarry C. E. Duff & Son, Inc.	Richland	Tymochtee Dolomite (Silurian)	crushed stone—unspecified	Lgn 2
		C. E. Duff & Son, Inc.	Sylvania	Detroit River Group (Devonian)	crushed stone—riprap, building, road base, resurfacing stone	LS-3
Lucas	Northwood Stone & Asphalt Co.	Northwood Stone & Asphalt Co.	Waterville	Tymochtee Dolomite (Silurian)	crushed stone—riprap, building, road base, resurfacing stone	LS-1
	The France Stone Co.	Silica	Waynesfield		crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, ice control aglime	LS-2
	Maumee Stone Co.	Maumee Stone Co.	Smith	Vanport limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Mg-43
Mahoning	Heiser Stone Co.	Heiser Stone Co.	Springfield	Vanport limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Mg-54
	Honey Creek Stone Co.	Honey Creek Stone Co.	Poland	Vanport limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone; stone for portland cement manufacture; aglime	Mg-608
	SME Bessemer Cement, Inc.	Quarry #8				

1985 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY—Continued

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Marion	J. M. Hamilton & Sons Co.	J. M. Hamilton & Sons Co.	Marion	Columbus & Delaware Limestones (Devonian) Silurian	crushed stone—stone for bituminous concrete, building, road base, resurfacing stone	Mn-2
	National Lime & Stone Co.	Marion Plant	Grand Prairie, Marion		crushed stone—riprap, building, road base, resurfacing stone, railroad ballast; aglime	Mn-3
	Tri County Limestone Co.	Tri County Limestone Co.	Grand		crushed stone—riprap, stone for portland cement concrete, building, road base, resurfacing stone, other; aglime	Mn-1
Mercer	John W. Karch Stone Co.	John W. Karch Stone Co.	Jefferson	Silurian	crushed stone—riprap, building, road base, resurfacing stone; aglime	Mr-1
	Rockford Stone Co.	Rockford Stone Co.	Dublin	Lockport & Guelph Dolomites (Silurian)	crushed stone—building, road base, resurfacing stone; aglime	Mr-2
	Armco, Inc.	Piqua Minerals	Springcreek	Brassfield Limestone, Dayton & Laurel Dolomites (Silurian)	crushed stone—riprap, metallurgical stone, building, road base, resurfacing stone, railroad ballast, fillers; aglime	Mr-1
Miami	Gregory Stone, Inc.	Gregory Quarry	Union	Brassfield Limestone (Silurian)	crushed stone—riprap, building, road base, resurfacing stone; aglime	Mi-16
	Ludlow Stone, Inc.	Ludlow Stone, Inc.	Union	Cedarville Dolomite (Silurian)	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, cement blocks; aglime	Mi-502
	C. F. Poeppelman Sand & Stone, Inc.	C. F. Poeppelman, Inc.	Newberry			Mi-10
Monroe	Gerald L. Christman	Christman Quarry	Franklin		crushed stone—building, road base, resurfacing stone	Me-501
	Zerger's Quarry	Zerger's Quarry	Franklin		crushed stone—building, road base, resurfacing stone	Ne-86 ²
Montgomery	American Aggregates Corp.	Phillipsburg Limestone #421	Clay	Cedarville Dolomite (Silurian)	crushed stone—building, road base, resurfacing stone	My-1
		Dayton Limestone #420	Madison	Cedarville Dolomite (Silurian)	crushed stone—building, road base, resurfacing stone	My-23
	Southwestern Portland Cement Co.	Southwestern Portland Cement Co.	Wayne	upper Brassfield Limestone (Silurian)	stone for portland cement manufacture	My-58
Morgan	Central Ohio Coal Co.	Sidwell Quarry #3	Manchester	Benwood limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Mon-600
	Central Ohio Coal Co.	Sidwell Quarry #2	Meigs, Rich Hill	Sewickley limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Mum-896
Muskingum		Sidwell Quarry	Newton	Maxville Limestone (Mississippian)	crushed stone—stone for bituminous concrete, building, road base, resurfacing stone	Mum-104
	Chesterhill Stone Co.	Fultonham #1	Newton	Maxville Limestone (Mississippian)	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone; stone for portland cement manufacture; aglime	Mum-106
	Columbia Portland Cement Corp.	Lyle Quarry	Newton	Maxville Limestone (Mississippian)	crushed stone—stone for portland cement concrete	Mum-24
Noble	King Limestone, Inc.	King Limestone, Inc.	Brookfield	Ewing limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Ne-106
	Zerger's Quarry	Zerger's Quarry	Stock		crushed stone—building, road base, resurfacing stone	Ne-86 ³
Ottawa	Edward Kraemer & Sons, Inc.	White Rock Quarry	Allen	Guelph Dolomite (Silurian)	crushed stone—riprap, metallurgical stone, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone; aglime	Oa-6
	Maumee Stone Co.	Rocky Ridge	Benton		crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone	Oa-14
	Standard Slag Co.	Marblehead	Danbury	Columbus Limestone (Devonian)	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, railroad ballast	Oa-7

	USG Industries, Inc.		Clay	Silurian	crushed stone—building, road base, resurfacing stone; lime (burned stone)—building, chemical and industrial	Oa-1
Paulding	USG Industries, Inc.	Paulding	Crane	Tennile Creek Dolomite (Devonian)	crushed stone—riprap, building, road base, resurfacing stone; aglime	Pg 7
	The France Stone Co.	Paulding Quarry	Crane	Detroit River Group & Dundee Limestone (Devonian)	crushed stone—metallurgical stone; stone for portland cement manufacture	Pg 1
	General Portland, Inc.	Maumee Stone Co.	Auglaize	Detroit River Group & Dundee Limestone (Devonian)	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, ice control; aglime	Pg 2
Perry	Maxville Stone Co.	Maxville Stone Co.	Monday Creek	Maxville Limestone (Mississippian)	crushed stone—building, road base, resurfacing stone	Py-235
Pickaway	Limestone, Inc.	Limestone, Inc.	Perry		crushed stone—riprap	Pky-4
Pike	Latham Limestone, Inc.	Latham Limestone, Inc.	Mifflin	Greenfield Dolomite (Silurian)	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, railroad ballast; aglime	Pke-13
Preble	Wysong Stone Co.	Wysong Stone Co.	Twin		crushed stone—riprap, building, road base, resurfacing stone, refractory stone; dimension stone	Pre-5
Putnam	Ottawa Stone Co., Inc. Putnam Stone Co., Inc.	Ottawa Stone Co. Putnam Stone Co.	Blanchard Pleasant, Riley	Tymochtee Dolomite (Silurian) Silurian	unspecified crushed stone—riprap, building, road base, resurfacing stone	Pm 3 Pm-2
Sandusky	The France Stone Co. Gotttron Bros. Co.	Bellevue Gotttron Bros. Co.	City of Bellevue Sandusky		crushed stone—building, road base, resurfacing stone	Sy-6
	Martin Marietta Chemicals	Woodville Quarry	Woodville		crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, other	Sy-5
	Ohio Lime Co.	Plant #3	Jackson	Guelph Dolomite (Silurian)	crushed stone—riprap, flux stone; lime (burned stone)—chemical and industrial, refractory	Sy-1
	Steetley Resources, Inc.	Ohio Lime Co.	Madison	Guelph Dolomite (Silurian)	crushed stone—berm stone, other; aglime; lime (burned stone)—chemical and industrial	Sy-4
				Silurian	crushed stone—metallurgical stone, building, road base, resurfacing stone; aglime; lime (burned stone)—chemical and industrial, other	Sy 8
Seneca	The France Stone Co.	Bloomville	Bloom	Columbus & Delaware Limestones (Devonian)	crushed stone—riprap, building, road base, resurfacing stone; aglime	Sa-3
	North Shore Stone Quarries, Inc.	Flat Rock	Thompson		crushed stone—riprap, building, road base, resurfacing stone; dimension stone; aglime	Sa-1
			Thompson		crushed stone—riprap, metallurgical stone; dimension stone	Sa-8
Shelby	Miami River Stone Co.	Miami River Stone Co.	Orange	Cedarville Dolomite (Silurian)	crushed stone—riprap, stone for bituminous concrete, building, road base, resurfacing stone, railroad ballast; aglime	Shy 6
	Sidney Sand & Gravel Co. Spring Creek Corp.	Rock Run Quarry	Washington Clinton		crushed stone—riprap	Shy-16 Shy-15
Stark	East Ohio Limestone Co.	East Ohio Limestone Co.	Lake	Putnam Hill limestone (Pennsylvanian)	crushed stone—building, road base, resurfacing stone	Sk-663
	Kohl Industries	Black Hawk	Bethlehem, Pike	Putnam Hill & Vanport limestones (Pennsylvanian)	crushed stone—stone for bituminous concrete, building, road base, resurfacing stone	Sk 217
Tuscarawas	Kimble Limestone Co.	Kimble Limestone	Dover	Vanport limestone (Pennsylvanian)	crushed stone—riprap, building, road base, resurfacing stone	Ts-1818
	Sugarcreek Clay & Limestone, Inc.	Sugarcreek Clay & Limestone, Inc.	Sugar Creek		crushed stone—riprap, building, road base, resurfacing stone	Ts 1928

See also Noble County
See also Monroe County

1985 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY—Continued

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Union	L. G. Rockhold & Sons, Inc.	L. G. Rockhold & Sons, Inc.	York		crushed stone—stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone; aglime	Un-1
	Union Aggregates Co.	Union Limestone Plant	Millcreek	Columbus Limestone (Devonian)	crushed stone—riprap, building, road base, resurfacing stone; aglime	Un-2
Van Wert	Maumee Stone Co.	Scott Quarry	Union		crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, ice control	Vt-3
	Ridge Township Quarry Suever Stone Co., Inc.	Ridge Township Quarry Suever Stone Co.	Ridge Washington	Tymochtee Dolomite (Silurian) Tymochtee Dolomite (Silurian)	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, railroad ballast, other; aglime; other	Vt-7 Vt-1
Washington	Guernsey Limestone Co., Inc.	Guernsey Limestone Co., Inc.	Adams	Benwood & Uniontown limestones (Pennsylvanian)	crushed stone—riprap, building, road base, resurfacing stone	Wh-47
Williams	Maumee Stone Co.	South Montpelier	Superior		crushed stone—stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone	Ws-64
Wood	The France Stone Co.	Custar	Milton		crushed stone—riprap, building, road base, resurfacing stone; aglime	Wd-5
	MacRitchie Materials, Inc.	MacRitchie Materials, Inc.	Perry	Silurian	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone	Wd-1
	Maumee Stone Co.	Lime City Quarry	Perrysburg		crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, ice control; aglime	Wd-6
		Portage Quarry	Portage	Greenfield & Lockport Dolomites (Silurian)	crushed stone—riprap, stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, ice control	Wd-11
Wyandot	Charles H. McCarthy Quarry National Lime & Stone Co.	McCarthy Stone Quarry Carey Plant	Pitt Crawford	Bass Islands Group (Silurian) Silurian	crushed stone—building, road base, resurfacing stone crushed stone—riprap, building, road base, resurfacing stone, railroad ballast, flux stone; aglime; lime (burned stone)—chemical and industrial	Wt-3 Wt-1
	Wyandot Dolomite, Inc.	Wyandot Dolomite, Inc.	Crawford	Greenfield & Guelph Dolomites (Silurian)	crushed stone—stone for portland cement concrete, stone for bituminous concrete, building, road base, resurfacing stone, railroad ballast, refractory stone, manufactured sand; aglime	Wt-8

*Sales only of limestone—no mining. All material shipped in for sale.

1985 OHIO DIRECTORY OF LAKE ERIE AND MAUMEE RIVER
SAND AND GRAVEL DREDGERS

Name of operator	Permitted dredging areas
Erie Sand & Steamship Co.	Fairport, Vermilion-Lorain Inner, Vermilion-Lorain Outer
Osborne Materials Co.	Fairport, Vermilion-Lorain Inner, Vermilion-Lorain Outer
White Bros. Sand, Inc.	Maumee Bay, Maumee River

1985 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

SAND AND GRAVEL OPERATORS DIRECTORIES

97

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Allen	Rockport Sand & Gravel Co., Inc.	Rockport Sand & Gravel Co., Inc.	Monroe	sand—portland cement concrete, building, road construction, resurfacing, filtration	An-14
		Rockport Sand & Gravel Co., Inc.	Monroe	gravel—filtration, landscaping	
			Monroe	sand—portland cement concrete, road construction, resurfacing, filtration	An-15
			Monroe	gravel—building, filtration, landscaping	
Ashland	Charles Bucklew Sand & Gravel Co. Alvin Keffler Trucking & Excavating	Charles Bucklew Dinsmore Pit	Jackson Jackson	gravel—fill	Ald-3
			Jackson	sand—road construction, resurfacing	Ald-12
			Mohican	gravel—road construction, resurfacing	
			Mohican	sand—building, road construction, resurfacing	Ald-9
			Montgomery	gravel—building, road construction, resurfacing	
			Montgomery	sand—portland cement concrete, building	Ald-11
			Green	gravel—road construction, resurfacing, driveway use	
			Green	sand—building, road construction, resurfacing, other	Ald-7
Ashtabula				gravel—other	
			Denmark	gravel—driveway use	Asa-10
			Denmark	sand—portland cement concrete, building, fill, unspecified	Asa-14
			Morgan	gravel—road construction, resurfacing, fill, unspecified	Asa-K ¹
			Wayne	sand—building, fill	
			Kingsville	sand—bituminous concrete, building	Asa-11
			Kingsville	sand—bituminous concrete, building	Asa-15
			Kingsville	gravel—building, unspecified	
Athens				sand—building	As-1117
			York	gravel—building	
			York	sand—road construction, resurfacing	As-588
			Rome	gravel—road construction, resurfacing	
			Rome	sand—bituminous concrete, fill	As-1161
			York	gravel—bituminous concrete, driveway use, fill	
Auglaize				gravel—fill	
			Union	sand—portland cement concrete, building	Ae-23
			Union	gravel—portland cement concrete	Ae-30
			Union	sand—unspecified	
			Pusheta	gravel—unspecified	Ae-16
Belmont				sand—portland cement concrete, bituminous concrete	Br-74
			Mead	gravel—portland cement concrete, bituminous concrete, road construction, resurfacing, unspecified	
Butler				sand—foundry, building, fill, other	Br-36
			St. Clair	gravel—building, road construction, resurfacing, other	
			St. Clair	sand—road construction, resurfacing	Br-35
			Fairfield	gravel—road construction, resurfacing	
			St. Clair	sand—road construction, resurfacing	Br-5
			St. Clair	gravel—road construction, resurfacing	
			Ross	gravel—other	Br-48
			Ross	sand—road construction, resurfacing	Br-14
			Fairfield	gravel—building, other	
			Ross	gravel—road construction, resurfacing	Br-40
			Madison	sand—road construction, resurfacing	Br-52
			Madison	gravel—road construction, resurfacing	
			Lemon	sand—portland cement concrete, building	Br-15
			Lemon	gravel—building, portland cement concrete	
			Lemon	sand—building, road construction, resurfacing	Br-1
			Madison	gravel—building, road construction, resurfacing	
			Madison	sand—road construction, resurfacing, fill	Br-6
			St. Clair	gravel—building, road construction, resurfacing, fill	Br-3
			St. Clair	gravel—building, road construction, resurfacing	
			Fairfield	sand—unspecified	Br-54
			Fairfield	gravel—unspecified	

¹No mine number has been assigned by the Division of Mines.

1985 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY—Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Butler (cont.)	Watson Gravel, Inc.	Watson Pit	Fairfield	sand—portland cement concrete, bituminous concrete, building, fill	Br-47
	Welch Sand & Gravel, Inc.	Schlichter Pit	Fairfield	gravel—building, portland cement concrete, road construction, resurfacing sand—building gravel—building	Br-38
Carroll	Oneida Sand & Gravel, Inc.	Oneida Sand & Gravel, Inc.	Brown	sand—road construction, resurfacing gravel—road construction, resurfacing	Cl-204
Champaign	American Aggregates Corp.	Urbana #215	Urbana	sand—road construction, resurfacing	Cpn-1
	Mechanicsburg Sand & Gravel, Inc.	Mechanicsburg Sand & Gravel, Inc.	Union	gravel—road construction, resurfacing sand—unspecified	Cpn-22
Clark	Moore's Excavating Co.	Moore's Excavating Co.	Salem	gravel—unspecified sand—building gravel—building	Cpn-20
	American Aggregates Corp.	Fairborn #413	Bethel	sand—road construction, resurfacing	Cl-13
	County Line Sand & Gravel Woodrow C. Demmy	County Line Sand & Gravel Denny Sand & Gravel	Moorefield Mad River	gravel—road construction, resurfacing gravel—building sand—building	Cl-27 Cl-502
	Hilltop Basic Resources, Inc.	Enon Washed Sand & Gravel Co.	Bethel	gravel—fill sand—portland cement concrete, bituminous concrete, building gravel—building, portland cement concrete, bituminous concrete	Cl-3
Clermont	Springfield Sand & Gravel Co.	Fairborn Aggregate Plant	Bethel	sand—portland cement concrete, bituminous concrete, unspecified gravel—portland cement concrete, bituminous concrete, unspecified	Ge-4 ²
	Kipp's Gravel Co., Inc. OKI Contracting, Inc.	Springfield Sand & Gravel Co. Kipp's Gravel Co., Inc. OKI Contracting, Inc.	Springfield Stonelick Washington	sand—portland cement concrete, bituminous concrete gravel—building, portland cement concrete, bituminous concrete, ice control	Cl-25
Columbiana	Beaver Creek Sand & Gravel, Inc.	Beaver Creek Sand & Gravel, Inc.	Salem	sand—unspecified gravel—unspecified	Cl-7
	Neiheisel Sand & Gravel	Neiheisel Sand & Gravel	Fairfield	sand—road construction, resurfacing gravel—road construction, resurfacing	Cl-11
Coshocton	Apache Aggregate & Paving Co.	Apache Aggregate & Paving Co.	Keene	sand—fill gravel—building sand—building gravel—building	Ca-855 Ca-600
	Boyd Gravel Co. Spring Industries	Boyd Gravel Co. Newcomerstown Plant	Bethlehem Oxford	sand—road construction, resurfacing gravel—road construction, resurfacing gravel—road construction, resurfacing	Cn-783 Cn-694
Crawford	Gibson Sand & Gravel Co.	Gibson Sand & Gravel	Jefferson	sand—bituminous concrete, road construction, resurfacing gravel—bituminous concrete, road construction, resurfacing	Cn-624
Cuyahoga	Silver Arrow Systems, Inc. Terra Vista Sand & Gravel Co.	Silver Arrow Systems, Inc. Terra Vista Sand & Gravel	Village of Glenwillow Village of Valley View	sand—fill gravel—fill sand—fill gravel—fill	Cd-3 Cya-26 Cya-31
Darke	Foureman's Sand & Gravel, Inc.	Foureman's Sand & Gravel, Inc.	Greenville	gravel—building	Dke-4
Erie	Hollinger Gravel Plant	Hollinger Gravel Plant	Harrison	sand—portland cement concrete, building gravel—building, portland cement concrete, farm use, driveway use sand—farm use gravel—farm use	Dke-10
	Elmer Borchardt, Inc. Keener Sand & Clay Co. Mesenburg Bros., Inc. Miller Sand Co.	Elmer Borchardt, Inc. Huron Plant Mesenburg Bros., Inc. Miller Sand Co.	Margaretta Huron Milan Margaretta	gravel—other sand—foundry sand—other sand—fill	Ee-18 Ee-5 Ee-24 Ee-28

Fairfield	Lancaster Sand & Gravel Co.	Lancaster Sand & Gravel Co.	Berne	sand—portland cement concrete, bituminous concrete, unspecified gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing, unspecified	Fd-13
Franklin	American Aggregates Corp.	Lockbourne #213	Hamilton	sand—road construction, resurfacing	Fn-23
		Columbus #210	Marion	gravel—road construction, resurfacing	Fn-6
	Big Walnut Sand & Gravel Co. J.P. Sand & Gravel Co.	Big Walnut Sand & Gravel Co. J.P. Sand & Gravel Co.	Hamilton, Madison Hamilton	gravel—road construction, resurfacing	Fn-14 Fn-52
	L & M Excavators	Westerville Industrial Park	Blendon	sand—building	Fn-54
	Masons Sand & Gravel Co.	Masons Sand & Gravel	Hamilton	gravel—building	Fn-11
	Olen Corp.	Olen Corp.	Brown	sand—building	Fn-43
	Wapak Sand & Gravel Co.	Agg Rok	Franklin	sand—building, road construction, resurfacing gravel—building, road construction, resurfacing sand—portland cement concrete, bituminous concrete, building	Fn-36
Gallia	Keener Sand & Clay Co.	Gallia Plant	Springfield	sand—foundry	Ga-507
Geauga	Haueter Sand & Gravel Co.	Haueter Sand & Gravel Co.	Burton, Newbury	sand—portland cement concrete, building gravel—building, road construction, resurfacing, filtration, erosion control, other	Gea-29
	Teague Gravel Co., Inc.	Teague Gravel Co., Inc.	Newbury	sand—building, filtration gravel—building, septic stone	Gea-35
Greene	American Aggregates Corp.	Xenia #414	Beaver Creek	sand—road construction, resurfacing	Ge-33
	Hilltop Basic Resources, Inc.	Fairborn Aggregate Plant	Bath	gravel—road construction, resurfacing sand—portland cement concrete, bituminous concrete, unspecified	Ge-43
	Moraine Materials, Inc.	Moraine Materials, Inc.	Beaver Creek	gravel—portland cement concrete, bituminous concrete, unspecified	Ge-32
	Phillips Sand & Gravel	Moraine Materials, Inc.	Spring Valley	sand—building, road construction, resurfacing	Ge-38
	Xenia Sand, Gravel, & Asphalt Paving Co.	Phillips Sand & Gravel	Beaver Creek	gravel—building, road construction, resurfacing, filtration sand—unspecified	Ge-36
Hamilton	American Materials Corp.	Xenia Sand, Gravel, & Asphalt Paving Co.	Xenia	gravel—unspecified sand—unspecified gravel—unspecified	Ge-10
		Harrison #712	Harrison	sand—road construction, resurfacing	Hmn-37
		Kilby Rd. #713	Whitewater	gravel—road construction, resurfacing	Hmn-AMC ⁴
	Ashcraft Sand & Gravel Barrett Paving Materials, Inc.	Ashcraft Sand & Gravel Barrett Paving Materials, Inc.	Whitewater Crosby	gravel—road construction, resurfacing gravel—building, fill sand—road construction, resurfacing, fill, other	Hmn-54 Hmn-44
	James Bunnell, Inc.	James Bunnell, Inc.	Harrison	gravel—road construction, resurfacing, fill, unspecified sand—unspecified	Hmn-50
	Dravo Corp.	James Bunnell, Inc.	Whitewater	gravel—unspecified sand—unspecified	Hmn-59
		Newtown Plant	Anderson	gravel—unspecified	Hmn-47
		Newtown Plant	Anderson	sand—road construction, resurfacing gravel—road construction, resurfacing	Hmn-55
		Camp Dennison Plant	Symmes	gravel—road construction, resurfacing sand—road construction, resurfacing	Hmn-5
		Cleaves Plant	Whitewater	gravel—road construction, resurfacing	Hmn-64
	Eaton Sand & Gravel Co., Inc.	Eaton Sand & Gravel Co., Inc.	Whitewater	gravel—road construction, resurfacing sand—bituminous concrete, road construction, resurfacing, other gravel—bituminous concrete, road construction, resurfacing, other	Hmn-46

³See also Greene County.
⁴See also Clark County.

⁵No mine number has been assigned by the Division of Mines.

1985 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY—Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Hamilton (cont)	Hornsby Sand & Gravel Co.	Hornsby Sand & Gravel Co.	Harrison	sand—road construction, resurfacing	Hmn-45
	Bertha A. Leonard Rack Sand, Inc.	Bertha A. Leonard Rack Sand, Inc.	Crosby	gravel—building	Hmn-67
	T & J Sand & Gravel, Inc.	T & J Sand & Gravel, Inc.	Mill Creek	sand—fill	Hmn-10
	Three Rivers Sand & Gravel, Inc.	Three Rivers Sand & Gravel, Inc.	Whitewater	sand—building, mortar	Hmn-58
	Watson Gravel, Inc.	Harrison Pit	Miami	sand—road construction, resurfacing	Hmn-28
Henry	Welch Sand & Gravel, Inc.	East Miami Pit	Whitewater	gravel—other	Hmn-60
	Gerken Materials, Inc.	Hooven Pit	Colerain	fill	
	Hocking County Engineers	Gerken Materials, Inc.	Whitewater	gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing	Hmn-48
	Hocking Valley Concrete	Hocking Co. Gravel Pit	Liberty	sand—building	Hmn-49
		Hocking Valley Concrete	Green	sand—building, road construction, resurfacing	Hy 5
Holmes	Bros. Sand & Gravel Co.	Bros. Sand & Gravel Co.	Hardy	sand—road construction, resurfacing, ice control	Hg-296
	Feikert Sand & Gravel, Inc.	Feikert Sand & Gravel, Inc.	Salt Creek	gravel—road construction, resurfacing, fill	Hg-262
				gravel—building, portland cement concrete, road construction, resurfacing, filtration, fill	
Huron	Price Sand & Gravel	Price Sand & Gravel Pit #1	Norwalk	sand—road construction, resurfacing, unspecified	Hs-82
				gravel—road construction, resurfacing, unspecified	Hs-511
				sand—portland cement concrete, bituminous concrete, building, farm use	
Knox	Fredericktown Sand & Gravel Co.	Fredericktown Sand & Gravel Co.	Middlebury	gravel—building, portland cement concrete, road construction, resurfacing, other	Hmn-1
	Goodwin Sand & Gravel, Inc.	Goodwin Sand & Gravel, Inc.	Clinton	sand—portland cement concrete, building, bituminous concrete, road construction, resurfacing, filtration	Kx-13
	Kokosing Materials, Inc.	KMI #1	Morris	sand—building, road construction, resurfacing, unspecified	Kx-7
	Mickley Gravel Co.	Mickley Gravel Co.	Union	gravel—building, road construction, resurfacing, other	Kx-16
	Purdy Sand & Gravel Co.	Purdy Sand & Gravel Co.	Clinton	construction, resurfacing, other	Kx-5
Lake	Small's Sand & Gravel, Inc.	Small's Sand & Gravel, Inc.	Harrison	gravel—portland cement concrete, bituminous concrete, road construction, resurfacing, other	Kx-3
		Small's Sand & Gravel, Inc.	Pleasant	gravel—portland cement concrete, bituminous concrete, road construction, resurfacing	Kx-15
				sand—other	Kx-8
				sand—other	
	R. W. Sidley, Inc.	Painesville Plant	Painesville	gravel—other	Lke-7
Lawrence	Becky Lane Trucking, Inc.	Becky Lane Sand	Perry	sand—portland cement concrete, bituminous concrete, building	Le-430
	Burlington Sand & Gravel Co.	Burlington Sand & Gravel	Perry	gravel—building	Le-426
	Economy Sand Co.	Economy Sand Co.	Rome	sand—fill	Le-441
Licking	Alexandria Materials Co.	Alexandria Pit	St. Albans	sand—filtration	Lg-8
	American Aggregates Corp.	Newark #214	Newark	sand—building, road construction, resurfacing	Lg-2
	Dry Creek Crushed Gravel Co.	Dry Creek Crushed Gravel Co.	Newton	sand—road construction, resurfacing	Lg-7
		Dry Creek Crushed Gravel Co.	Newton	sand—building, unspecified	Lg-DC ⁶

Logan	Van Wey Sand & Gravel, Inc.	Dry Creek Farms	Washington	sand—building, unspecified gravel—building, unspecified sand—foundry, building, road construction, resurfacing gravel—building, road construction, resurfacing, ice control sand—unspecified gravel—fill	Lg-31
	York Road Gravel Co.	Van Wey Sand & Gravel, Inc.	Newton		Lg-10
		York Road Gravel Co.	Etna		Lg-38
Lorain	C. E. Duff & Son, Inc.	Duff Sand Co.	Washington	sand—portland cement concrete, building, filtration sand—unspecified gravel—utility construction	Lgn-31 Lgn-6
	Neer's Engineering Laboratories	Neer's Engineering Laboratories	Union		Lgn-38
	Winzeler Excavating Co.	Winzeler Excavating Co.	Washington	sand—fill	Lgn-12
Lucas	Belu & Son Paving, Inc.	Belu Sand Pit	Henrietta	sand—building sand—building sand—building	Ls-20 Ls-24 Ls-13
	Maumee Haulers, Inc.	Nebraska Pit	Springfield		
	Parker Sand & Stone, Inc.	Parker Sand & Stone, Inc.	Swanton		
Mahoning	Seaway Sand & Stone, Inc.	Seaway Sand & Stone			
	Neiheisel Sand & Gravel	Neiheisel Sand & Gravel	Green	sand—building, road construction, resurfacing gravel—building, road construction, resurfacing	Mg NSG ^a
Marion	Rialto Farms	Rialto Farms	Pleasant	gravel—other	Mn-17
	Union Aggregates Co.	Green Camp Gravel Plant	Pleasant	sand—building, filtration sand—other	Mn-12
		Prospect Sand & Gravel Plant	Prospect	gravel—other sand—building gravel—other	Mn-10
Medina	Baker Sand, Inc.	Baker Sand, Inc.	Harrisville, Westfield	sand—road construction, resurfacing gravel—road construction, resurfacing	Ma-4
		Baker Sand, Inc.	Westfield	sand—building, road construction, resurfacing, fill gravel—road construction, resurfacing	Ma-20
	Seville Sand & Gravel, Inc.	Seville Sand & Gravel, Inc.	Harrisville	sand—bituminous concrete, building gravel—building, road construction, resurfacing	Ma-22
Meigs	Dravo Corp.	Apple Grove Plant	Letart	sand—road construction, resurfacing gravel—road construction, resurfacing	Ms-205
	Humphrey Farms	Vivian Humphrey	Olive	gravel—other	Ms-295
	Meigs County Commissioners	Meigs County Commissioners	Letart	sand—road construction, resurfacing gravel—road construction, resurfacing	Ms-301
Miami	Richards & Son, Inc.	Richards & Son, Inc.	Letart	sand—bituminous concrete, building gravel—building, bituminous concrete	Ms-298
	Weber Sand & Gravel	Weber Sand & Gravel	Olive	sand—road construction, resurfacing, unspecified gravel—road construction, resurfacing, unspecified	Ms-287
	Eldean Gravel Co.	Eldean Gravel Co.	Concord	sand—unspecified gravel—unspecified	Mi-2
Montgomery	Ernst Gravel Co.	Ernst Gravel Co.	Springcreek	sand—unspecified gravel—unspecified	Mi-6
	New Carlisle Sand & Gravel Co.	New Carlisle Sand & Gravel Co.	Bethel	gravel—unspecified sand—fill	Mi-501
	Troy Gravel Co.	Troy Gravel Co.	Concord	gravel—fill sand—unspecified	Mi-3
	Valley Gravel Co.	Valley Gravel Co.	Monroe	gravel—unspecified sand—unspecified	Mi-8
	John Wise Gravel Co.	John Wise Gravel	Newberry	gravel—unspecified gravel—building, farm use	Mi-9
	American Aggregates Corp.	Rip Rap Road #416	Wayne	sand—road construction, resurfacing gravel—road construction, resurfacing	My-66
	Broadway Sand & Gravel Co., Inc.	Broadway Sand & Gravel Co., Inc.	City of Moraine	sand—building gravel—building	My-65
	Carpenter's Excavating	Carpenter's Excavating	City of Moraine	sand—fill	My-67
	Carter & Webb, Inc.	Carter & Webb, Inc.	Miami	gravel—building sand—unspecified	My-68
	Englewood Sand & Gravel Co., Inc.	Englewood Sand & Gravel	Butler	sand—unspecified gravel—unspecified	My-5
		Englewood Sand & Gravel	Butler	sand—unspecified gravel—unspecified	My-64
	Hilltop Basic Resources, Inc.	West Carrollton Aggregate Plant	Jefferson, Miami	sand—portland cement concrete, bituminous concrete, building gravel—portland cement concrete, bituminous concrete, fill	My-19
	Miller Bros. Gravel, Inc.	Miller Bros. Gravel, Inc.	Butler	sand—portland cement concrete, building, masonry, other gravel—building, portland cement concrete, road construction, resurfacing, filtration, other	My-52

^aInformation for Lg-DC is included with information for Lg-31.
^bNo mine number has been assigned by the Division of Mines.

1985 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY—Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Montgomery (cont.)	Moraine Materials, Inc.	Moraine Materials, Inc.	City of Moraine	sand—portland cement concrete, building, road construction, resurfacing	My-29
	Northmont Sand & Gravel Co.	Northmont Sand & Gravel Co.	Randolph	gravel—building, portland cement concrete, road construction, sand—building	My-49
	Partin Sand & Gravel	Partin Sand & Gravel	Wayne	gravel—building	My-55
	Weidle Sand & Gravel, Inc.	Weidle Sand & Gravel, Inc.	German	sand—building	My-41
Morgan	Chesterhill Stone Co.	Stockport Plant #2	Windsor	sand—portland cement concrete, bituminous concrete, building, road construction, resurfacing, unspecified	Mon-588
Morrow	Chesterville Sand & Gravel Co., Inc.	Chesterville Sand & Gravel Co., Inc.	Chester	gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing, unspecified	Mw-10
Muskingum	Cox Gravel, Inc.	Jennings	Cass	sand—building, road construction, resurfacing	Mum-799
	Salt Creek Materials	Salt Creek Materials	Washington	gravel—portland cement concrete, bituminous concrete, road construction, resurfacing	Mum-216
	Sturm & Dillard Co.	Sturm & Dillard Co.	Circleville	sand—unspecified	Pky-1
Pickaway	C.D. Materials	Piketon Pit	Scioto	gravel—unspecified	Pke-26
Pike	Chattin Concrete	Chattin Concrete	Seal	sand—bituminous concrete, road construction, resurfacing	Pke-23
	Gregory Materials Co.	Plant #1	Scioto	sand—portland cement concrete, building	Pke-30
	Standard Slag Co.	Cutlip	Scioto	sand—portland cement concrete, bituminous concrete, building, gravel—building, portland cement concrete, filtration	Pke-24
	Beck Sand & Gravel, Inc.	Beck Sand & Gravel, Inc.	Shalersville	gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing, ice control	Pe-50
Portage	Karl Brugmann Sand & Gravel	Karl Brugmann Sand & Gravel	Shalersville	sand—unspecified	Pe-15
	Oscar Brugmann Sand & Gravel, Inc.	Oscar Brugmann Sand & Gravel, Inc.	Shalersville	sand—bituminous concrete, building, filtration	Pe-9
	Charlestown Sand & Gravel Co.	Charlestown Sand & Gravel	Charlestown	sand—unspecified	Pe-17
	Copley Sand & Gravel Co.	Copley Sand & Gravel Co.	Aurora	gravel—unspecified	Pe-84
	R. A. Cruise Sand & Gravel, Inc.	R. A. Cruise Sand & Gravel, Inc.	Franklin, Ravenna	sand—unspecified	Pe-45
	Hilltop Aggregate, Inc.	Hilltop Aggregate, Inc.	Suffield	sand—road construction, resurfacing, unspecified	Pe-56
	Warner L. Hughes, Inc.	Hughes Pit	Suffield	gravel—building, unspecified	Pe-76
	Jefferson Materials Co.	Howitt	Streetsboro	sand—other	Pe-63
	Karg Sand & Gravel Co.	Karg Sand & Gravel Co.	Brimfield	sand—fill	Pe-77
	Karg Sand & Gravel Co.	Karg Sand & Gravel Co.	Brimfield	gravel—building, road construction, resurfacing, filtration	Pe-83
	Lakeside Sand & Gravel Co.	Lakeside Sand & Gravel Co.	Shalersville	sand—sewers, water lines	Pe-40
	Lucky Sand & Gravel Co.	Lucky Sand & Gravel Co.	Mantua	gravel—driveway use	Pe-75
				sand—sewers, water lines	
				gravel—driveway use	
				sand—portland cement concrete	
				gravel—building	
				sand—portland cement concrete, building, fill	
				gravel—building, road construction, resurfacing, filtration, landscaping, roofing	

Preble	Miller Sand & Gravel Co.	Miller Sand & Gravel	Windham	sand—building, fill	Pe-39
	Northern Ohio Materials, Inc.	Northern Ohio Materials, Inc.	Streetsboro	gravel—building, other	Pe-85
	The Schloss Paving Co.	Schloss Paving Co.	Mantua	gravel—building, road construction, resurfacing, fill	Pe-60
	Solon Excavators Sand & Gravel, Inc.	Solon Excavators Sand & Gravel, Inc.	Shalersville	sand—bituminous concrete	Pe-36
	Standard Slag Co.	Shalersville	Shalersville	gravel—building	Pe-68
Richland	Twin Lakes Sand, Inc.	Twin Lakes Sand, Inc.	Shalersville, Streetsboro	sand—portland cement concrete, bituminous concrete, building, other	
	Wysong Gravel Co.	Twin Lakes Sand, Inc.	Streetsboro	gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing	Pe-59
		Camden Plant	Somers	gravel—road construction, resurfacing	Pe-67
		West Alexandria Plant	Twin	sand—road construction, resurfacing	Pre-4
				sand—portland cement concrete, bituminous concrete, building, road construction, resurfacing	Pre-6
Ross	D. H. Bowman & Sons, Inc.	D. H. Bowman & Sons, Inc.	Jefferson	gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing	Rd-4
	John L. Garber Materials, Inc.	J. L. Garber Materials, Inc.	Troy	sand—building, road construction, resurfacing	Rd-14
	Mohican Materials Co.	Mohican Materials Co.	Troy	gravel—building	Rd-10
	Mohican Sand & Gravel, Inc.	Mohican Sand & Gravel, Inc.	Monroe	gravel—building, road construction, resurfacing	Rd-5
	Chief Cornstalk Sand & Gravel, Inc.	Chief Cornstalk Sand & Gravel, Inc.	Springfield	gravel—building, unsurfaced	Rs-25
Sandusky	Joe N. Dresbach	Joe N. Dresbach	Franklin	gravel—building, unsurfaced	Rs-12
	Elm Spring Farm	Elm Spring Farm	Union	gravel—other	Rs-26
	Haubell & Sons	Haubell & Sons	Springfield	sand—building	Rs-24
	R & R Aggregates, Inc.	R & R Aggregates, Inc.	Huntington	sand—bituminous concrete, building, road construction, resurfacing	Rs-23
	Three Locks Construction Co.	N-3	Scioto	sand—fill	Rs-19
Seneca	Whitehall Farms, Inc.	Whitehall Farms, Inc.	Green Creek	gravel—construction	Sy-18
	Cunningham Asphalt Paving, Inc.	Cunningham Pit	Porter	sand—portland cement concrete, bituminous concrete, building, filtration, ice control, fill	So-83
	Standard Slag Co.	Haverhill	Green	gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing, filtration, other	So-79
	Wright Sand Pit	Wright Sand	Eden	sand—fill	Sa-11
	Fleckenstein Farm Gravel Pit	Fleckenstein Farm Gravel Pit	McLean	sand—fill	Shy-12
Shelby	Miami River Stone Co.	Miami River Stone Co.	Orange	gravel—fill	Shy-17
	Sidney Sand & Gravel Co.	Milligan & Milligan-Washington Twp. Pit	Washington	gravel—bituminous concrete, unspecified	Shy-13
	Spring Creek Corp.	Pence	Washington	sand—other	Shy-11
		Jones Deposit	Washington	sand—portland cement concrete, bituminous concrete	Shy-18
				gravel—portland cement concrete	

1985 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY—Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Stark	Beaver Excavating, Inc. Canton Aggregate	Stone Products, Inc. Canton Aggregate	Perry Jackson	gravel—road construction, resurfacing	Sk-190
	A. J. Diana & Sons, Inc.	Neidert Pit	Plain	sand—portland cement concrete, bituminous concrete, other	Sk-689
	Hartville Sand & Gravel, Inc.	Hartville Sand & Gravel	Lawrence	sand—portland cement concrete, bituminous concrete, other	Sk-681
	Heiser Sand & Gravel	Heiser Sand & Gravel	Lake	gravel—building, unspecified	Sk-694
	Massillon Washed Gravel Co.	Massillon Washed Gravel Co.	Jackson Plain	sand—portland cement concrete, building, filtration, other	Sk-182
	Oster Sand & Gravel, Inc.	Oster Sand & Gravel, Inc.	Bethlehem	gravel—building, portland cement concrete, road construction, resurfacing, filtration	Sk-688
Summit	Flesher Sand & Gravel	Flesher Sand & Gravel	Perry	sand—building, fill	Sk-206
	Jackie Lee Enterprises, Inc.	Minor Rd. Plant		gravel—building, road construction, resurfacing	Sk-607
	H. M. Miller Construction Co.	Krumroy Plant		gravel—portland cement concrete, bituminous concrete, road construction, resurfacing	Sk-165
	Northern Ohio Materials, Inc. Portage Lakes Sand & Gravel Co.	Northern Ohio Materials, Inc. Plant #4	Norton	sand—bituminous concrete, building, fill	St-52
	Riverside Sand & Gravel Co., Inc.	Riverside Sand & Gravel (Acken)	Copley	gravel—building, bituminous concrete, road construction, resurfacing, ice control, fill	St-39
	Rubber City Sand & Gravel Co.	Knight Plant	Springfield	sand—road construction, resurfacing	St-46
	Twin Lakes Sand, Inc.	Twin Lakes Sand, Inc.	Hudson Green	gravel—fill	St-41
	Samco, Inc.	Twin Lakes Sand, Inc.	Stow	sand—building, road construction, resurfacing, fill	St-33
	Oster Sand & Gravel, Inc.	Oster Sand & Gravel, Inc.	Green	gravel—building, road construction, resurfacing	St-24
	Soehnlen Sand & Gravel Co.	Soehnlen Bros. Sand & Gravel	Coventry	sand—building	St-9
Trumbull	Spring Industries	County Line Plant Midvale Pit	Green	gravel—road construction, resurfacing	St-44
	Stewart & Reichman, Inc.	Sandville Pit	Mesopotamia	gravel—road construction, resurfacing	St-32
	Stocker Sand & Gravel Co.	Stocker Sand & Gravel Co.	Lawrence	sand—building, road construction, resurfacing	TL-12
	American Aggregates Corp. Bellbrook Gravel Co.	Franklin #417 Bellbrook Gravel Co.	Wayne	sand—bituminous concrete, building, road construction, resurfacing, fill	Ts-1852
Tuscarawas	Soehnlen Sand & Gravel Co.	Soehnlen Bros. Sand & Gravel	Wayne	gravel—building, bituminous concrete, road construction, resurfacing, ice control, fill	Ts-1826
	Spring Industries	County Line Plant Midvale Pit	Franklin Goshen	sand—building, road construction, resurfacing	Ts-1788
	Stewart & Reichman, Inc.	Sandville Pit	Sandy	sand—portland cement concrete, bituminous concrete, building, road construction, resurfacing	Ts-1771
	Stocker Sand & Gravel Co.	Stocker Sand & Gravel Co.	Warwick	gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing	Ts-515
	American Aggregates Corp. Bellbrook Gravel Co.	Franklin #417 Bellbrook Gravel Co.	Clay	sand—bituminous concrete	Ts-111
	Stewart & Reichman, Inc.	Stewart & Reichman, Inc.	Clay	gravel—road construction, resurfacing	Ts-69
	Stocker Sand & Gravel Co.	Stocker Sand & Gravel Co.	Clay	sand—building, road construction, resurfacing	Ts-125
	American Aggregates Corp. Bellbrook Gravel Co.	Franklin #417 Bellbrook Gravel Co.	Franklin	gravel—road construction, resurfacing	Wan-38
	Stewart & Reichman, Inc.	Stewart & Reichman, Inc.	Wayne	sand—unspecified	Wan-24
	Stocker Sand & Gravel Co.	Stocker Sand & Gravel Co.	Wayne	gravel—unspecified	

Washington	Clark Gravel Co. Dravo Corp.	J. L. Clark Crushed Stone South Lebanon Plant	Union Union	gravel—road construction, resurfacing, other sand—road construction, resurfacing	Wan-22 Wan-41 ⁷
	L & I Trucking & Construction, Inc.	L & I Trucking & Construction, Inc.	Hamilton	gravel—road construction, resurfacing gravel—other	Wan-8
	Moraine Materials, Inc.	Moraine Materials, Inc.	Franklin	gravel—portland cement concrete, building, road construction, resurfacing gravel—building, portland cement concrete, road construction, resurfacing, filtration sand—unspecified	Wan-6
	Carl E. Oeder & Sons Sand & Gravel	Carl E. Oeder	Union	gravel—unspecified	Wan-41 ⁷
	Watson Gravel, Inc.	Mason Pit	Union	sand—building, road construction, resurfacing, fill gravel—building, road construction, resurfacing	Wan-10
	Briggs Sand & Gravel, Inc.	Briggs Sand & Gravel, Inc.	Warren	sand—building	Wn-508
	Chesterhill Stone Co.	Lowell Plant #3	Adams	gravel—road construction, resurfacing sand—portland cement concrete, bituminous concrete, building, road construction, resurfacing, unspecified	Wn-56
	Trout Sand & Gravel Co.	Trout Sand & Gravel Co.	Warren	gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing, unspecified	Wn-510
	Union Slag Corp.	Union Slag Plant #3	Muskingum	sand—building gravel—building sand—bituminous concrete, building, road construction, resurfacing, filtration	Wn-43
		Union Slag Plant #2	Muskingum	gravel—building, bituminous concrete, road construction, resurfacing, filtration sand—bituminous concrete, building, road construction, resurfacing	Wn-44
Wayne	Prairie Lane Sand & Gravel Co.	Prairie Lane Sand & Gravel Co.	Franklin	gravel—bituminous concrete, road construction, resurfacing	We-11
	Rupp Construction, Inc.	Rupp Construction, Inc.	Baughman	sand—unspecified gravel—unspecified	We-7
	Zollinger Sand & Gravel Co.	Zollinger Sand & Gravel Co.	Chippewa	sand—portland cement concrete, bituminous concrete, building gravel—building, portland cement concrete, bituminous concrete, road construction, resurfacing, filtration	We-15
	Maumee Stone Co.	South Montpelier	Superior	sand—unspecified gravel—unspecified	Ws-6
Williams	Weber Sand & Gravel, Inc.	Weber Sand & Gravel, Inc.	St. Joseph	sand—bituminous concrete, road construction, resurfacing, other gravel—road construction, resurfacing, other sand—portland cement concrete, building, filtration gravel—building, farm use, fill	Ws-11
	Amert Gravel Co.	Amert Gravel Co.	Eden	sand—portland cement concrete, building, road construction, resurfacing, fill	Wt-4
Wyandot	H & M Sand & Gravel Co.	H & M Sand & Gravel Co.	Eden	gravel—building, filtration, fill sand—portland cement concrete, bituminous concrete, building, filtration	Wt-5
	Kirby's Sand & Gravel, Inc.	H & M Sand & Gravel Co. Kirby's Sand & Gravel, Inc.	Eden Eden	gravel—building, filtration, fill sand sand—building, filtration gravel—building, portland cement concrete, filtration	Wt-15 ^a Wt-17

⁷This mine was operated 1st quarter 1985 by Dravo Corp. and 1st through 4th quarters by Carl E. Oeder & Sons Sand & Gravel.
^aProduction only, no sales.

1985 OHIO DIRECTORY OF SANDSTONE/CONGLOMERATE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

County	Name of operator	Name of quarry	Township	Geological unit	Type and principal use	State mine number
Carroll	Conotton Valley Quarries Co.	Conotton Valley Quarry	Lee		dimension stone—finished	Cl-102
	Beaver Creek Sand & Gravel, Inc.	Beaver Creek Sand & Gravel, Inc.	Salem		crushed or broken stone—road base	Ca-855
Coshocton	Briar Hill Stone Co.	Quarry #15	Jefferson	Massillon (Pennsylvanian)	dimension stone—rough architectural	Cn-788
		Quarry #26	Monroe	Massillon (Pennsylvanian)	dimension stone—rough architectural	Cn-13
		Quarry #32	Monroe	Massillon (Pennsylvanian)	dimension stone—rough architectural	Cn-686
		Quarry #24	Monroe	Massillon (Pennsylvanian)	dimension stone—rough architectural	Cn-692
		Quarry #54	Monroe	Massillon (Pennsylvanian)	dimension stone—rough architectural	Cn-809
Cuyahoga	Boyas' Valley View Quarry	Boyas' Valley View Quarry	Tiverton	Massillon (Pennsylvanian)	dimension stone—refractory, rough architectural	Cn-659
	Cleveland Quarries Co.	Birmingham Quarry	Independence	Bedford (Mississippian)	crushed or broken stone—aggregate	Cya-BE ¹
Erie	Harris Excavating Co.	Harris Excavating Co.	Florence	Berea (Mississippian)	dimension stone—rubble, grindstones, finished, curbing, flagging	Ec-21
	Walter C. Best, Inc.	Best Sand Corp.	Berlin	Berea (Mississippian)	crushed or broken stone—riprap	Ec-15
Geauga			Munson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone—foundry sand, frac sand, glass sand, metallurgical pebble, refractory, riprap, aggregate, silica flour, polishing/grinding sand, engine sand, fire and furnace sand, trap sand	Gea-3
					dimension stone—rough construction, other	
Huron	Best Silica Co.	Best Silica Co.	Bainbridge	Sharon conglomerate (Pennsylvanian)	crushed or broken stone—foundry sand, aggregate, other	Gea-36
	R. W. Sidley, Inc.	R. W. Sidley, Inc. Sandstone Quarry	Thompson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone—rough construction, other	Gea-1
Knox	Mesenburg Bros., Inc.	Mesenburg Bros., Inc.	Townsend	Berea (Mississippian)	dimension stone—rough architectural	Hrn-8
	Briar Hill Stone Co.	Quarry #6	Jefferson	Massillon (Pennsylvanian)	crushed or broken stone—glass sand, silica flour, foundry sand, engine sand, frac sand, other	Kx-12
Lorain	Cleveland Quarries Co.	Amherst Quarries	Amherst	Berea (Mississippian)	crushed or broken stone—aggregate	Kx-1
					dimension stone—finished, rubble, flagging, curbing, grindstones	Ln-3
Mahoning	Gwin Contracting Co.	Gwin Contracting Co.	Milton	Sharon sandstone (Pennsylvanian)	crushed or broken stone—unspecified	Mg-62
	Central Silica Co.	Central Silica Co.	Hopewell	Massillon (Pennsylvanian)	crushed or broken stone—glass sand, silica flour, foundry sand, other	Py-202
Perry	Southern Silica, Inc.	Southern Silica, Inc.	Jefferson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone—glass sand, foundry sand, engine sand, refractory, other	Rs-16
					dimension stone—rough construction, rough architectural, filtration	
Scioto	Waller Bros. Stone Co.	Inskeep Quarry	Rush	Buena Vista (Mississippian)	dimension stone—rough construction	So-48
		Crabtree Quarry	Morgan		dimension stone—rough construction	So-76
Stark	Kohl Industries	Black Hawk	Bethlehem, Pike		crushed or broken stone—unspecified	Sk-217 ²
	Hard Rocks, Inc.	Hard Rocks, Inc.	Kinsman		crushed or broken stone—aggregate, riprap	Tl-13
Trumbull	Kimble Limestone Co.	Kimble Limestone	Dover		crushed or broken stone—construction	Ts-1818
	Pennsylvania Glass Sand Corp.	Coxey Works	Wayne	Massillon (Pennsylvanian)	crushed or broken stone—foundry sand, fire and furnace sand, building	Ts-1660
Tuscarawas						

¹No mine number has been assigned by the Division of Mines.²Production only, no sales.

1985 OHIO DIRECTORY OF CLAY-MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

County	Name of operator	Name of mine	Township	Geological unit	Principal use	State mine number
Auglaize	Sandkuhl Tile Co.	Sandkuhl Tile Co.	Salem	Pleistocene glacial clay	common clay products	Ae-7
Coshocton	General Clay Products Corp.	Drescher Pit	Crawford	Lower Kittanning (Pennsylvanian)	common clay products	Cn-787
Greene	Southwestern Portland Cement Co.	Southwestern Portland Cement Co.	Bath	till	cement manufacture	Ge-8
Hocking	General Clay Products Corp.	General Clay Products Corp.	Falls Gore	No. 5 fire clay (Pennsylvanian)	vitrified products	Hg-205
Holmes	Clark Clay Co.	Clark Clay Co.	Hardy	Putnam Hill (Pennsylvanian)	common clay products	Hs-56
	Holmes Limestone Co.	Holmes 241 Plant	Hardy	Brookville (Pennsylvanian)	common clay products	Hs-67
Jackson	Paul Adams Coal Co.	Adams Pit	Madison	Lower Kittanning (Pennsylvanian)	refractories	Jkn-568
	Cedar Heights Clay Co.	Cedar Heights	Jefferson	No. 5 clay (Pennsylvanian)	refractories	Jkn-1001
	Waterloo Coal Co., Inc.	Zoar	Madison	No. 5 clay (Pennsylvanian)	refractories	Jkn-1007
Lawrence	American Olean Tile Co., Inc.	Jeffery's Mine	Bloomfield, Madison	Kittanning (Pennsylvanian)	common clay products	Jkn-367
	Brohard Mining and Development, Inc.	Brohard Mining and Development, Inc.	Elizabeth	No. 5 clay (Pennsylvanian)	common clay products	Le-440
Medina	General Clay Products Corp.	General Clay Products Corp.	Elizabeth		refractories	Le-406
Muskingum	Bowerston Shale Co.	Bowerston Shale Co.	Wadsworth	Flint Ridge & Middle Mercer (Pennsylvanian)	common clay products	Ma-6
	Dennis Clay Co.	Corver Mine	Jackson	No. 5 clay (Pennsylvanian)	vitrified products	Mum-776
	Hammer Clay Co., Inc.	Hammer Clay Co., Inc.	Newton		common clay products, oil-well plugging material	Mum-D ¹
Paulding	General Portland, Inc.	Paulding Quarry	Crane		common clay products	Mum-848
Perry	Dennis Clay Co.	Cannon Mine	Harrison	Detroit River & upper Dundee (Devonian)	cement manufacture	Pg-1
Putnam	Miller Bros. Clay Works, Inc.	Miller Bros. Clay Works, Inc.	Monterey	No. 5 clay (Pennsylvanian)	common clay products	Py-296
Stark	C M Mining, Inc.	C M Mine	Pike		common clay products	Pm-9
	Kohl Industries	Black Hawk	Bethlehem, Pike	Brookville & Lower Kittanning (Pennsylvanian)	refractories	Sk-214
Tuscarawas	Belden Brick Co.	Wallick Pit	Franklin, Wayne	Brookville (Pennsylvanian)	refractories	Sk-217
		Moonaw Pit	Sugar Creek	Brookville (Pennsylvanian)	common clay products	Ts-1841
		Finzer-Belden	Sugar Creek	Brookville & Lower Kittanning (Pennsylvanian)	common clay products	Ts-1517
		Shanesville Pit	Sugar Creek	Brookville (Pennsylvanian)	common clay products	Ts-1646
		Beagle Pit	Sugar Creek	Brookville (Pennsylvanian)	common clay products	Ts-1939
	Eberhart Coal, Inc.	Eberhart #2 Hot Strip	Dover	Brookville (Pennsylvanian)	common clay products	Ts-1960
	Kimble Limestone Co.	Kimble Limestone	Dover	Lower Kittanning (Pennsylvanian)	refractories	Ts-1620
	L & M Minerals, Inc.	Lulkert	Mill	Vanport (Pennsylvanian)	common clay products, refractories	Ts-1818
	Stone Creek Brick Co.	Evans	Mill, Rush, Warwick		common clay products	Ts-1914
	Zoar Mining Co.	Stone Creek Brick Co. Clay Mine	Jefferson		common clay products	Ts-1884
		Zoar Mining Co.	Sandy		vitrified products	Ts-1557
		Claycraft Plant #1 Clay Pit	Sandy		common clay products	Ts-538
Wyandot	Claycraft Co.	Claycraft Plant #1 Clay Pit	Crane	alluvial clay	common clay products	Ts-540
						Wt-7

¹No mine number has been assigned by the Division of Mines.

1985 OHIO DIRECTORY OF SHALE-MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

County	Name of operator	Name of mine	Township	Geological unit	Principal use	State mine number
Columbiana	Summitville Tiles, Inc.	Summitville Tiles, Inc.	Franklin	Lower Kittanning (Pennsylvanian)	common clay products	Ca-205
Coshocton	General Clay Products Corp.	Drescher Pit	Crawford		common clay products, vitrified products	Cn-787
Cuyahoga	Hydraulic Press Brick Co.	Hydraulic Press Brick Co.	City of Independence	Chagrin (Devonian)	lightweight aggregate	Cya-19
Franklin	Claycraft Co.	Claycraft Plant #4 Shale Pit	Jefferson	Bedford (Mississippian)	common clay products, landfill cover	Fn-1
Harrison	Bowerston Shale Co.	Bowerston Shale Co.	Monroe	Conemaugh (Pennsylvanian)	vitrified products	Hn-152
Hocking	General Clay Products Corp.	General Clay Products Corp.	Falls Gore	No. 5 fire clay (Pennsylvanian)	vitrified products	Hg-205
Holmes	General Clay Products Corp.	Troyer Pit	Clark	Lower Kittanning (Pennsylvanian)	common clay products, vitrified products	Hs-77
Lawrence	Lone Star-Marquette	Bear Run	Decatur	Vanport (Pennsylvanian)	cement manufacture	Le-308
Licking	Bowerston Shale Co.	Bowerston Shale Co.	Hanover	Logan (Mississippian)	vitrified products	Lg-501
Mahoning	SME Bessemer Cement, Inc.	Quarry #8	Poland	Vanport (Pennsylvanian)	cement manufacture	Mg-608
Marion	Glen-Gery Corp.	Glen-Gery Corp.	Tully	Bedford (Mississippian)	common clay products	Mn-7
Medina	General Clay Products Corp.	General Clay Products Corp.	Wadsworth		common clay products	Ma-6
Muskingum	Columbia Portland Cement Corp.	Lyle Quarry	Newton	Maxville (Mississippian)	cement manufacture	Mum-24
Noble	Towne Square Products	Towne Square Products	Buffalo		common clay products	Ne-66
Stark	Kohl Industries	Black Hawk	Bethlehem, Pike	Brookville & Lower Kittanning (Pennsylvanian)	other glazed ware	Sk-217
Tuscarawas	Romany Ceramics, Inc.	Romany Ceramics, Inc.	Pike			Sk-170
	Belden Brick Co.	Wallick Pit	Franklin, Wayne	Strasburg (Pennsylvanian)	common clay products	Ts-1841
		Moomaw Pit	Sugar Creek	Brookville & Tionesta (Pennsylvanian)	common clay products	Ts-1517
		Finzer-Belden	Sugar Creek	Brookville & Tionesta (Pennsylvanian)	common clay products	Ts-1646
		Shanesville Pit	Sugar Creek	Brookville (Pennsylvanian)	common clay products	Ts-1939
		Kimble Limestone	Dover	Vanport (Pennsylvanian)	common clay products, construction	Ts-1818
	Kimble Limestone Co.					
	L & M Minerals, Inc.	Evans	Mill, Rush, Warwick		common clay products	Ts-1884
	Stone Creek Brick Co.	Stone Creek Brick Co. Shale Mine	Jefferson		vitrified products, cement manufacture	Ts-1558
	Sugarcreek Clay and Limestone, Inc.	Sugarcreek Clay and Limestone, Inc.	Sugar Creek		unspecified	Ts-1928
	Zoar Mining Co.	Zoar Mining Co.	Sandy		common clay products	Ts-538

1985 OHIO DIRECTORY OF GYPSUM-MINE OPERATORS REPORTING SALES OR PRODUCTION

County	Name of operator	Name of mine	Township	Geological unit	State mine number
Ottawa	Celotex Corp.	American No. 2	Portage	Silurian	Oa-2

1985 OHIO DIRECTORY OF SALT-MINE AND SALT-BRINING-PLANT OPERATORS
REPORTING SALES OR PRODUCTION, BY COUNTY

County	Name of operator	Name of mine	Township	Geological unit and product	State mine number
Cuyahoga	International Salt Co.	Cleveland Mine	City of Cleveland	Salina (Silurian)—rock salt	Cya-30
Lake	Morton Thiokol, Inc.	Fairport Mine	Painesville	Salina (Silurian)—rock salt	Lke-6
Licking	R. H. Penick Co.	R. H. Penick Co.	Newark	"Newburg" (Silurian)—natural brine	Lg-45
Summit	Diamond Crystal Salt Co.	Diamond Crystal Salt Co.	Coventry	Tymochtee (Silurian)—artificial brine	St-9127
Wayne	Morton Thiokol, Inc.	Morton Salt Well Field	Milton	Salina (Silurian)—artificial brine	We-9129

1985 OHIO DIRECTORY OF PEAT-MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

County	Name of operator	Name of mine	Township	Type and principal use	State mine number
Ashland	Mohican Organic Products, Inc.	Mohican Pit	Mifflin	humus	Ald-13
Champaign	Sphagnum Moss Peat Farm	Sphagnum Moss Peat Farm	Harrison	humus—live-bait preservative	Cpn-9
Williams	Lingvai Peat Co.	Lingvai Peat Co.	Center	mulch	Ws-17
Wyandot	Kalo, Inc.	Kalo, Inc. Humus Plant	Crawford	humus—legume inoculation	Wt-14

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1985 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY

COAL ●○

Map
location
number

Name of operator

1 B & C Coal, Inc.
2 Nutter Bros. Coal Co., Inc.
3 Nacco Mining Co.
4 Cravat Coal Co.
5 Marietta Coal Co.

6 Ohio Coal & Construction Corp.
7 Ohio Coal & Construction Corp.
8 R & F Coal Co.
9 Bannock Coal Co.
10 Ohio River Collieries, Inc.

11 Cravat Coal Co.
12 Cravat Coal Co.
13 Marietta Coal Co.
14 R & F Coal Co.
15 R & F Coal Co.

16 Saginaw Mining Co.
17 Marietta Coal Co.
18 Marietta Coal Co.
19 Fairpoint Coal Co.
20 Ohio River Collieries, Inc.

21 Cravat Coal Co.
22 GEX Hardy, Inc.
23 Joyce Coal Co.
24 R & F Coal Co.
25 Ohio River Collieries, Inc.

26 Cravat Coal Co.
27 Ohio River Collieries, Inc.
28 Consolidation Coal Co.
29 Ohio Coal & Construction Corp.
30 R & F Coal Co.

31 R & F Coal Co.
32 R & F Coal Co.
33 GEX Hardy, Inc.
34 Ohio Coal & Construction Corp.
35 Ohio Coal & Construction Corp.

36 Ohio River Collieries, Inc.
37 R & F Coal Co.
38 Marietta Coal Co.
39 Marietta Coal Co.
40 Marietta Coal Co.

41 Marietta Coal Co.
42 Marietta Coal Co.
43 Ohio Coal & Construction Corp.
44 R & F Coal Co.
45 R & F Coal Co.

46 R & F Coal Co.
47 Cravat Coal Co.
48 Ohio Coal & Construction Corp.
49 Ohio Coal & Construction Corp.
50 Gene Whitsell Coal

51 Krulock, Inc.
52 Cravat Coal Co.
53 Marietta Coal Co.
54 Marietta Coal Co.
55 Bannock Coal Co.

56 R & F Coal Co.
57 R & F Coal Co.
58 Marietta Coal Co.
59 James Bros. Coal Co.
60 Midway Coal, Inc.

61 James Bros. Coal Co.
62 Puskarich Limestone Co.
63 Mac Mining Co.
64 Regal Mining, Inc.
65 Industrial Mining Co.

66 Industrial Mining Co.
67 Industrial Mining Co.
68 Mac Mining Co.
69 Regal Mining, Inc.
70 Mac Mining Co.

71 Blum Coal Co.
72 Hanover Coal Co.
73 K D Coal Co., Inc.
74 East Fairfield Coal Co.
75 Plate Coal Co.

76 Coalbrook Mining Co.
77 Crawford Coal Co.
78 Commercial Minerals, Inc.
79 K & R Enterprises, Inc.
80 Ted Mesmer & Sons

81 M & S Coal Co., Inc.
82 D & D Mining Co.
83 C & W Mining Co., Inc.
84 D & D Mining Co.
85 D & D Mining Co.

86 D & D Mining Co.
87 Magnum Coal, Inc.
88 Johnson Mining Co.
89 East Fairfield Coal Co.
90 Jeffco Sales & Mining Co.

91 Lisbon Coal Crushers, Inc.
92 Lisbon Coal Crushers, Inc.
93 McCourt Mining
94 Industrial Mining Co.
95 Buckeye Coal Mining Co., Inc.

96 Hutson Road Mining Co.
97 Robinson & Sons Mining
98 Commercial Minerals, Inc.
99 C & E Coal Co.
100 Johnson Mining Co.

101 P & J Mining Co.
102 Mansfield Hawk Mining, Inc.
103 Blum Coal Co.
104 Rodco, Inc.
105 M & S Coal Co., Inc.

106 G & M Mineral Co.
107 Cravat Coal Co.
109 Schlabach Coal Co.
111 Ohio Amco, Inc.
112 Simco-Peabody

113 Wills Creek Energy Co.
114 R & F Coal Co.
115 R & F Coal Co.
117 R & F Coal Co., Wills Creek Energy Co.
119 R & R Minerals, Inc.

120 R & F Coal Co.
121 R & F Coal Co.
122 R & F Coal Co.
123 R & F Coal Co., Wills Creek Energy Co.
124 R & F Coal Co., Wills Creek Energy Co.

125 Crown City Mining, Inc.
126 Merco Mining, Inc.
127 Green & Burritt Coal Co.
128 Kymcoal, Inc.
129 R & F Coal Co.

COAL—Continued

<i>Map location number</i>	<i>Name of operator</i>		
130	R & F Coal Co.	191	Mackra Minerals
132	RVG, Inc.	192	Ohio Coal & Construction Corp.
133	Thompson Mining Co.	193	Ohio Edison Co.
134	L & M Coal Co.	194	Industrial Mining Co.
135	R & F Coal Co.	195	Schiappa Coal Co.
136	Y & O Coal Co.	196	S & D Construction Corp.
137	Consolidation Coal Co.	197	Ohio Coal & Construction Corp.
138	R & F Coal Co.	198	C M Mining, Inc.
139	Fairpoint Coal Co.	199	Jefferson Holding, Inc.
140	R & F Coal Co.	200	S & D Construction Corp.
141	C K & K, Inc.	201	R & F Coal Co.
142	Triad Mining, Inc.	202	Belville Mining Co., Inc.
143	T P Mining, Inc.	203	Chisholm & Associates
144	W. B. Coal Co.	204	Ted Mesmer & Sons
145	R & F Coal Co.	205	Thompson Bros. Mining Co.
146	Varkony Mining	206	East Fairfield Coal Co.
147	R & F Coal Co.	207	SME Bessemer Cement, Inc.
148	Consolidation Coal Co.	208	Cardinal Mining, Inc.
149	W. B. Coal Co.	209	SME Bessemer Cement, Inc.
150	Consolidation Coal Co.	210	East Fairfield Coal Co.
151	R & F Coal Co.	211	East Fairfield Coal Co.
152	R & F Coal Co.	212	Southern Ohio Coal Co.
153	R & F Coal Co.	213	Southern Ohio Coal Co.
154	R & F Coal Co.	214	Markel Mining, Inc.
155	R & F Coal Co.	215	Quarto Mining Co.
156	R & F Coal Co.	216	Muskingum Mining, Inc.
157	Valley Coal Co.	217	King Quarries, Inc.
158	Valley Coal Co.	218	Sands Mining Corp.
159	Quality Coal Co.	219	Cravat Coal Co.
160	Nutter Bros. Coal Co., Inc.	220	King Quarries, Inc.
161	Holmes Limestone Co.	221	Dolen Excavating
162	Holmes Limestone Co.	222	Cravat Coal Co.
163	Miller Mining Co.	224	King Quarries, Inc.
164	Holmes Limestone Co.	227	Central Ohio Coal Co.
165	Waterloo Coal Co.	228	Central Ohio Coal Co.
166	Royal Oak Industries, Inc.	229	Bennoc, Inc.
167	Milton Mining Co.	230	B & N Coal, Inc.
168	Walton Coal Co., Inc.	231	B & N Coal, Inc.
169	B & D Coal Co., Inc.	232	R & F Coal Co.
170	LaMay Coal Co., Inc.	233	B & N Coal, Inc.
171	Elk Coal Co.	234	R & F Coal Co.
172	Stewart Coal Co.	235	Peabody Coal Co.
173	D & J Energy, Inc.	236	Peabody Coal Co.
174	Quality Coal Co.	237	Dennis Clay Co.
175	LaMay Coal Co., Inc.	238	Shawnee Coal Co.
176	Sands Hill Coal Co., Inc.	239	Crooksville Coal Co.
177	Royal Oak Industries, Inc.	240	Crooksville Coal Co. Strip-Tri-State Coal Sales, Inc.
178	Boich Mining Co.	241	Star Mining Co., Inc.
179	Schiappa Coal Co.	242	Shawnee Coal Co.
180	Weirton Construction Co.	243	Shawnee Coal Co.
181	Zimnox Mining Co.	244	Hillcrest Coal, Ltd.
182	Ohio Coal & Construction Corp.	245	Mansfield Hawk Mining, Inc.
183	R & F Coal Co.	246	ENZ, Inc.
184	R & F Coal Co.	247	Burning Hollow Coal Co.
185	D & L Contractors, Inc.	248	Kohl Industries
186	F & M Coal Co.	249	Statewide Landfill Co.
187	Valley Mining, Inc.	250	Hillcrest Coal, Ltd.
188	Ohio Coal & Construction Corp.	251	Horizon Coal Corp.
189	Anthony Mining Co., Inc.	252	K & R Enterprises, Inc.
190	Anthony Mining Co., Inc.	253	Holmes Limestone Co.
		254	Horizon Coal Corp.
		255	East Ohio Limestone Co.
		256	Empire Coal Co.
		257	Zoar Mining Co.
		258	Zoar Mining Co.

COAL—Continued

*Map
location
number*

Name of operator

259 Eberhart Coal, Inc.
260 Eberhart Coal, Inc.
261 Belden Brick Co.
262 Kimble Coal Co.
263 Eberhart Coal, Inc.

264 L & M Minerals, Inc.
265 Arrow Head Energy, Inc.
266 Arrow Head Energy, Inc.
267 L & M Minerals, Inc.
268 Puskarich Mining, Inc.

269 Red Malcuit, Inc.
270 Eberhart Coal, Inc.
271 Arapaho Mining, Inc.
272 Goshen Coal Co.
273 Valley Mining, Inc.

274 Daron Coal Co.
275 R & E Coal Co.
276 L & M Minerals, Inc.
277 Burning Hollow Coal Co.
278 Valley Mining, Inc.

279 J & D Mining Co.
280 Horizon Coal Corp.
281 Mudsock Minerals, Inc.
282 R & F Coal Co.
283 GEX Hardy, Inc.

284 Miller Mining Co.
285 Bluff Hill Coal Co.
286 Angel Valley Mining, Inc.
287 Arapahoe Mining, Inc.
288 Valley Mining, Inc.

289 Di Chiera Coal Co.
290 Horizon Coal Corp.
291 Empire Coal Co.
292 Valley Mining, Inc.
293 Mudsock Minerals, Inc.

294 Eberts Coal Co., Inc.
295 R & S Coal Co.
296 Elk Coal Co.
297 S & K Coal Co., Inc.
298 B & D Coal, Inc.

299 Sands Hill Coal Co., Inc.
300 Southern Ohio Coal Co.
301 Quality Coal Co.
303 B & N Coal, Inc.
304 B & N Coal, Inc.
305 Rodco, Inc.

LIMESTONE/DOLOMITE ■

*Map
location
number*

Name of operator

1 Davon, Inc.
2 Standard Slag Co.
3 Bluffton Stone Co.
4 National Lime & Stone Co.
5 National Lime & Stone Co.

6 National Lime & Stone Co.
7 Suever Stone Co., Inc.
8 Diamond Stone Quarries, Inc.
9 Diamond Stone Quarries, Inc.
10 Con-Ag, Inc.

11 National Lime & Stone Co.
12 Ayers Limestone Quarry, Inc.
13 Cravat Coal Co.
14 Brown County Highway Department
15 Puskarich Limestone Co.

16 American Aggregates Corp.
17 Melvin Stone Co.
18 National Lime & Stone Co.
19 American Aggregates Corp.
20 American Aggregates Corp.

21 National Lime & Stone Co.
22 Owens Stone Co., Inc.
23 Penry Stone Co.
24 Erie Blacktop, Inc.
25 Sandusky Crushed Stone Co., Inc.

26 Wagner Quarries Co.
27 American Aggregates Corp.
28 Melvin Stone Co.
29 Sugar Creek Stone Quarry, Inc.
30 American Aggregates Corp.

31 American Aggregates Corp.
32 American Aggregates Corp.
33 Southwestern Portland Cement Co.
34 Southwestern Portland Cement Co.
35 National Lime & Stone Co.

36 Pifer Stone Co.
37 Tarbox-McCall Stone Co.
38 Hardin Quarry Co., Inc.
39 Standard Slag Co.
40 Brohard Mining & Development, Inc.

41 Davon, Inc.
43 Marshall Quarry, Inc.
44 Holmes Limestone Co.
45 Holmes Limestone Co.
46 D & J Energy, Inc.

47 Waterloo Coal, Inc.
48 Brohard Mining & Development, Inc.
49 Connolly Construction Co., Inc.
50 C. E. Duff & Son, Inc.
51 Northwood Stone & Asphalt Co.

52 The France Stone Co.
53 The France Stone Co.
54 Maumee Stone Co.
55 Heiser Stone Co.
56 Honey Creek Stone Co.

57 SME Bessemer Cement, Inc.
58 SME Bessemer Cement, Inc.
59 J. M. Hamilton & Sons Co.
60 National Lime & Stone Co.
61 Tri County Limestone Co.

62 John W. Karch Stone Co.
63 Rockford Stone Co.
64 Armco, Inc.
65 Gregory Stone, Inc.
66 Ludlow Stone, Inc.

67 C. F. Poeppelman Sand & Stone, Inc.
68 Tipp Stone Co., Inc.
69 Gerald L. Christman
70 American Aggregates Corp.
71 American Aggregates Corp.

72 Southwestern Portland Cement Co.
73 Central Ohio Coal Co.
74 Central Ohio Coal Co.
75 Chesterhill Stone Co.
76 Columbia Portland Cement Corp.

LIMESTONE/DOLOMITE—Continued

SAND AND GRAVEL DREDGING OPERATION ▲

<i>Map location number</i>	<i>Name of operator</i>
78	Central Ohio Coal Co.
79	King Limestone, Inc.
80	Zerger's Quarry
81	Fox Stone Products, Inc.
82	Edward Kraemer & Sons, Inc.
83	Maumee Stone Co.
84	Standard Slag Co.
85	USG Industries, Inc.
86	The France Stone Co.
87	General Portland, Inc.
88	Maumee Stone Co.
89	Maxville Stone Co.
90	Somerset Lime & Stone, Inc.
91	Latham Limestone, Inc.
92	Limestone, Inc.
94	American Aggregates Corp.
95	Wysong Stone Co.
96	National Lime & Stone Co.
97	Ottawa Stone Co., Inc.
98	Putnam Stone Co., Inc.
100	The France Stone Co.
101	Gotttron Bros. Co.
102	Martin Marietta Chemicals
103	Ohio Lime Co.
104	Steetley Resources, Inc.
105	Steetley Resources, Inc.
106	Basic Refractories
107	The France Stone Co.
108	The France Stone Co.
109	North Shore Stone Quarries, Inc.
110	Miami River Stone Co.
111	Sidney Sand & Gravel Co.
112	Spring Creek Corp.
113	East Ohio Limestone Co.
114	Kohl Industries
115	SME Cement, Inc.
116	Belden Brick Co.
117	Kimble Limestone Co.
118	Sugarcreek Clay & Limestone, Inc.
119	L. G. Rockhold & Sons, Inc.
120	Union Aggregates Co.
121	Maumee Stone Co.
122	Ridge Township Quarry
123	Suever Stone Co., Inc.
124	Clinton Stone
125	American Aggregates Corp.
126	Guernsey Limestone Co., Inc.
128	The France Stone Co.
129	The France Stone Co.
130	MacRitchie Materials, Inc.
131	Maumee Stone Co.
132	Maumee Stone Co.
133	Charles H. McCarthy Quarry
134	National Lime & Stone Co.
135	Wyandot Dolomite, Inc.

<i>Map location number</i>	<i>Name of operator</i>
1	Erie Sand & Steamship Co.
2	Osborne Materials Co.
3	White Bros. Sand, Inc.
SAND AND GRAVEL ▲	
<i>Map location number</i>	<i>Name of operator</i>
1	Rockport Sand & Gravel Co., Inc.
2	Rockport Sand & Gravel Co., Inc.
3	Charles Bucklew Sand & Gravel Co.
4	Jones Trucking Co.
5	Alvin Keiffer Trucking & Excavating
6	Ries Sand & Gravel
7	Simanton Sand Co.
8	Young's Sand & Gravel Co.
9	Frye Sand & Gravel Co.
10	Janson Soil Service
11	Kinsman Sand & Gravel Co.
12	Meade Materials
13	Nelson Sand & Gravel, Inc.
14	Nelson Sand & Gravel, Inc.
15	R. W. Sidley, Inc.
16	R. W. Sidley, Inc.
17	Skidmore & Chah, Inc.
18	Athens Building Materials Co., Inc.
19	Black Top Contracting, Inc.
20	C. D. Materials
21	Lake Hope Asphalt, Inc.
23	Joseph Sand & Gravel
24	National Lime & Stone Co.
25	Quality Ready Mix, Inc.
26	Tri-State Asphalt Products
27	Ruggles Stone Co.
28	Aggregate Services, Inc.
29	American Materials Corp.
30	American Materials Corp.
31	Broshear Gravel Co.
32	Dingledine Sand & Gravel
33	Dravo Corp.
34	Dravo Corp.
35	Fairfield Ready Mix
36	Fairfield Ready Mix
37	Indian Creek Gravel Co.
38	Martin Farms, Inc.
39	Mecco, Inc.
40	Middletown Sand & Gravel Co.
41	Moorman Sand & Gravel Co.
42	New Miami Sand & Gravel, Inc.
43	Tri County Sand & Gravel
44	Watson Gravel, Inc.
45	Welch Sand & Gravel, Inc.
46	National Aggregate
47	Oneida Sand & Gravel, Inc.
48	American Aggregates Corp.

SAND AND GRAVEL—Continued

*Map
location
number*

Name of operator

49	D & W Sand & Gravel Co.	113	Moraine Materials, Inc.
50	Mechanicsburg Sand & Gravel, Inc.	114	Moraine Materials, Inc.
51	Moore's Excavating Co.	115	Phillips Sand & Gravel
52	American Aggregates Corp.	116	S & W Cement Contractors, Inc.
53	County Line Sand & Gravel	117	Xenia Sand, Gravel, & Asphalt Paving Co.
54	Woodrow C. Demmy	118	American Materials Corp.
55	Dinnen Sand & Gravel	119	American Materials Corp.
56	Eagle City Sand & Gravel Co.	120	Ashcraft Sand & Gravel
57	Hilltop Basic Resources, Inc.	121	Barrett Paving Materials, Inc.
58	Springfield Sand & Gravel Co.	123	James Bunnell, Inc.
59	The Brewer Company	124	James Bunnell, Inc.
60	Howerton Supply Co.	125	C. Carmical Sand & Gravel Co.
61	Kipp's Gravel Co., Inc.	126	Dravo Corp.
62	OKI Contracting, Inc.	127	Dravo Corp.
63	The Gravel Co.	128	Dravo Corp.
64	Beaver Creek Sand & Gravel, Inc.	129	Dravo Corp.
65	Ferris Coal Co., Inc.	130	Dravo Corp.
66	Therman L. Mercer	131	Dravo Northern Aggregates
67	Neiheisel Sand & Gravel	132	Eaton Sand & Gravel, Inc.
68	XL Sand & Gravel	133	Don Evans Sand & Gravel
69	Apache Aggregate & Paving Co.	134	Don Evans Sand & Gravel
70	Apache Aggregate & Paving Co.	135	Harrison Sand & Gravel Co.
71	Boyd Gravel Co.	136	Hornsby Sand & Gravel Co.
72	Spring Industries	137	Bertha A. Leonard
73	Wentz Concrete & Supply, Inc.	138	Queen City Gravel Co.
74	Galion Materials	139	Rack Sand, Inc.
75	Gibson Sand & Gravel Co.	140	T & J Sand & Gravel, Inc.
76	Silver Arrow Systems, Inc.	141	Three Rivers Sand & Gravel, Inc.
77	Terra Vista Sand & Gravel	142	Watson Gravel, Inc.
78	American Aggregates Corp.	143	Welch Sand & Gravel, Inc.
79	Feitshans Excavating	144	Welch Sand & Gravel, Inc.
80	Fouremen's Sand & Gravel, Inc.	145	Welch Sand & Gravel, Inc.
81	Hollinger Gravel Plant	146	Welch Sand & Gravel, Inc.
82	Hillsdale Sand & Gravel, Inc.	147	Gerken Materials, Inc.
83	Elmer Borchardt, Inc.	148	Ruggles Stone Co.
84	Jarrett Sand Co.	150	Hocking County Engineers
85	Keener Sand & Clay Co.	151	Hocking Valley Concrete
86	Mesenburg Bros., Inc.	152	S S Aggregates
87	Miller Sand Co.	153	Bros. Sand & Gravel Co.
91	Davis Sand & Gravel	154	Feikert Sand & Gravel, Inc.
92	Lancaster Sand & Gravel Co.	155	Jones Sand & Gravel Co.
93	George E. Williams Excavating, Inc.	156	Montgomery Sand Co.
94	Wapak Sand & Gravel Co.	157	Price Sand & Gravel
95	American Aggregates Corp.	158	Price Sand & Gravel
96	American Aggregates Corp.	159	Fredericktown Sand & Gravel Co.
97	Big Walnut Sand & Gravel Co.	160	Goodwin Sand & Gravel, Inc.
98	J. P. Sand & Gravel Co.	161	Kokosing Materials, Inc.
99	L & M Excavators	162	Mickley Gravel Co.
100	Masons Sand & Gravel Co.	163	Purdy Sand & Gravel Co.
101	Muskingum River Gravel Co.	164	Small's Sand & Gravel, Inc.
102	Olen Corp.	165	Small's Sand & Gravel, Inc.
103	Kenneth Leupp Gravel	166	R. W. Sidley, Inc.
105	M. T. Epling Co.	167	Becky Lane Trucking, Inc.
106	M. T. Epling Co.	168	Brohard Mining & Development, Inc.
107	Keener Sand & Clay Co.	169	Brohard Mining & Development, Inc.
108	Haueter Sand & Gravel Co.	170	Burlington Sand & Gravel Co.
109	Teague Gravel Co., Inc.	171	Economy Sand Co.
110	American Aggregates Corp.	172	Pine Creek Materials, Inc.
111	Ernst Aggregates, Inc.	173	Alexandria Materials Co.
112	Hilltop Basic Resources, Inc.	174	American Aggregates Corp.
		175	Dry Creek Crushed Gravel Co.
		176	Dry Creek Crushed Gravel Co.
		177	Dry Creek Crushed Gravel Co.
		178	Rockport Sand & Gravel Co., Inc.
		179	Van Wey Sand & Gravel, Inc.

SAND AND GRAVEL—Continued

<i>Map location number</i>	<i>Name of operator</i>		
180	Walter's Gravel	243	Cox Gravel, Inc.
181	York Road Gravel Co.	244	Cox Gravel, Inc.
182	C. E. Duff & Son, Inc.	245	Muskingum River Gravel Co.
183	C. E. Duff & Son, Inc.	246	Muskingum River Gravel Co.
184	Groves Gravel Co.	247	Muskingum River Gravel Co.
185	Johnson Gravel Co.	248	Salt Creek Materials
186	Doug Kneedler	249	Salt Creek Materials
187	Doug Kneedler	250	Raleigh Spradlin Gravel Co.
188	Logan Sand & Gravel Co.	251	Sturm & Dillard Co.
189	Neer's Engineering Laboratories	252	C. D. Materials
190	Winzeler Excavating Co.	253	Chattin Concrete
191	Belu & Son Paving, Inc.	254	Gregory Materials Co.
192	H. T. Griffin Excavating	255	Standard Slag Co.
193	Maumee Haulers, Inc.	256	Beck Sand & Gravel, Inc.
194	Parker Sand & Stone, Inc.	257	Karl Brugmann Sand & Gravel
195	Seaway Sand & Stone, Inc.	258	Oscar Brugmann Sand & Gravel, Inc.
196	Neiheisel Sand & Gravel	259	Charlestown Sand & Gravel Co.
197	Fleming Construction Co.	260	Copley Sand & Gravel Co.
198	Penry Stone Co.	261	R. A. Cruise Sand & Gravel, Inc.
199	Rialto Farms	262	Hilltop Aggregate, Inc.
200	Union Aggregates Co.	263	Warner L. Hughes, Inc.
201	Union Aggregates Co.	264	Hugo Sand Co.
202	Baker Sand, Inc.	265	Jefferson Materials Co.
203	Baker Sand, Inc.	266	Karg Sand & Gravel Co.
205	Ramsier Sand & Gravel	267	Karg Sand & Gravel Co.
206	Seville Sand & Gravel, Inc.	268	Lakeside Sand & Gravel Co.
207	Seville Sand & Gravel, Inc.	269	Lappin's Farm
208	Silchuk Gravel Co.	270	W. G. Lockhart & Sons
209	Dravo Corp.	271	Lucky Sand & Gravel Co.
210	Humphrey Farms	272	Miller Sand & Gravel Co.
211	Meigs County Commissioners	273	Northern Ohio Materials, Inc.
212	Richards & Son, Inc.	274	The Schloss Paving Co.
213	Weber Sand & Gravel	275	Sober Sand & Gravel Co.
214	American Aggregates Corp.	276	Solon Excavators Sand & Gravel, Inc.
215	Eldean Gravel Co.	277	Standard Slag Co.
216	Ernst Gravel Co.	278	Standard Slag Co.
217	New Carlisle Sand & Gravel Co.	280	Terra Vista Sand & Gravel
218	Tipp Stone Co., Inc.	281	Twin Lakes Sand, Inc.
219	Troy Gravel Co.	282	Twin Lakes Sand, Inc.
220	Valley Gravel Co.	283	Wartko Sand & Gravel, Inc.
221	John Wise Gravel Co.	284	Southern Ohio Aggregates
222	Woodville Concrete Corp.	285	Wysong Gravel Co.
223	American Aggregates Corp.	286	Wysong Gravel Co.
224	American Aggregates Corp.	287	D. H. Bowman & Sons, Inc.
225	Broadway Sand & Gravel Co., Inc.	288	Derwacter Sand & Gravel
228	Carpenter's Excavating	289	J. J. Scott Co.
229	Carter & Webb, Inc.	290	John L. Garber Materials, Inc.
230	Englewood Sand & Gravel Co., Inc.	291	Mohican Materials Co.
231	Haas Gravel Co.	292	Mohican Sand & Gravel, Inc.
232	Hilltop Basic Resources, Inc.	293	Three Locks Construction Co.
233	Miller Bros. Gravel, Inc.	295	Chief Cornstalk Sand & Gravel, Inc.
234	Moraine Materials, Inc.	296	Joe N. Dresbach
235	Northmont Sand & Gravel Co.	297	Elm Spring Farm
236	Partin Sand & Gravel Co.	298	Haubeil & Sons
237	Southern Hills Supply, Inc.	299	Muskingum River Gravel Co.
238	Tipp Sand & Gravel Co.	300	R & R Aggregates, Inc.
239	Weidle Sand & Gravel, Inc.	301	C. R. Gill Construction
240	Chesterhill Stone Co.	302	Whitehall Farms, Inc.
241	Lewis Huck	303	E. E. Blair Construction Co.
242	Chesterville Sand & Gravel Co., Inc.	304	Cunningham Asphalt Paving, Inc.
		305	Earl H. Schilling & Son
		306	Standard Slag Co.
		307	Wright Sand
		308	Brandewie Gravel Co.
		309	Ernst Gravel Co.

SAND AND GRAVEL—Continued

*Map
location
number*

Name of operator

310 Fleckenstein Farm Gravel Pit
311 Miami River Stone Co.
312 Sidney Sand & Gravel Co.
313 Sidney Sand & Gravel Co.
314 Spring Creek Corp.

315 Spring Creek Corp.
316 Allied Corp.
317 Beaver Excavating, Inc.
318 Canton Aggregate
319 Canton Aggregate

320 A. J. Diana & Sons, Inc.
321 Hartville Sand & Gravel, Inc.
322 Heiser Sand & Gravel
323 Heiser Sand & Gravel
325 Massillon Washed Gravel Co.

326 Oster Sand & Gravel, Inc.
327 Flesher Sand & Gravel
328 Jackie Lee Enterprises, Inc.
329 Lerkis Asphalt Co., Inc.
330 H. M. Miller Construction Co.

331 Northern Ohio Materials, Inc.
332 Portage Lakes Sand & Gravel Co.
333 Riverside Sand & Gravel Co., Inc.
334 Rubber City Sand & Gravel Co.
335 Spring Valley Investments, Inc.

336 Twin Lakes Sand, Inc.
337 Twin Lakes Sand, Inc.
338 Twin Lakes Sand, Inc.
340 Samco, Inc.
341 Fuhrer Farms

342 Oster Sand & Gravel, Inc.
343 Soehnlén Sand & Gravel Co.
344 Spring Industries
345 Spring Industries
346 Stewart & Reichman, Inc.

347 Stocker Sand & Gravel Co.
348 Stocker Sand & Gravel Co.
349 American Aggregates Corp.
350 Bellbrook Gravel Co.
351 Clark Gravel Co.

352 Dravo Corp., Carl E. Oeder & Sons Sand & Gravel
353 Embro, Inc.
354 Hornsby Sand & Gravel Co.
355 Hornsby Sand & Gravel Co.
356 J & J Davenport

357 L & I Trucking & Construction, Inc.
358 Moraine Materials, Inc.
359 Morrow Gravel Co.
360 Morrow Gravel Co.
361 Morrow Gravel Co.

363 Watson Gravel, Inc.
364 Beverly Slag Co.
365 Briggs Sand & Gravel, Inc.
366 Chesterhill Stone Co.
367 Muskingum River Gravel Co.

368 Muskingum River Gravel Co.
369 Trout Sand & Gravel Co.

370 Union Slag Corp.
371 Union Slag Corp.
372 Prairie Lane Sand & Gravel Co.
373 Rupp Construction, Inc.
374 Zollinger Sand & Gravel Co.

375 Maumee Stone Co.
376 Maumee Stone Co.
377 Weber Sand & Gravel, Inc.
378 Winzeler Excavating Co.
379 Amert Gravel Co.

380 H & M Sand & Gravel Co.
381 H & M Sand & Gravel Co.
382 Kirby's Sand & Gravel, Inc.
383 Homer Sammet Trucking

SANDSTONE/CONGLOMERATE ▼

*Map
location
number*

Name of operator

1 Conotton Valley Quarries Co.
2 Kohl Industries
3 Beaver Creek Sand & Gravel, Inc.
4 Briar Hill Stone Co.
5 Briar Hill Stone Co.

6 Briar Hill Stone Co.
7 Briar Hill Stone Co.
8 Briar Hill Stone Co.
9 Briar Hill Stone Co.
10 Briar Hill Stone Co.

11 Briar Hill Stone Co.
12 Briar Hill Stone Co.
13 Boyas Excavating, Inc.
14 Cleveland Quarries Co.
15 Harris Excavating Co.

16 Best Silica Co.
17 Walter C. Best, Inc.
18 R. W. Sidley, Inc.
19 Briar Hill Stone Co.
20 Mesenburg Bros., Inc.

21 Mineral Research & Recovery of Ohio, Inc.
22 Briar Hill Stone Co.
23 Briar Hill Stone Co.
24 Cental Silica Co.
25 Brohard Mining & Development, Inc.

26 Walter's Gravel
27 Cleveland Quarries Co.
28 Konik Excavating
29 Koontz Sandstone Co.
30 Gwin Contracting Co.

31 Central Silica Co.
32 Belden Brick Co.
33 Pennsylvania Glass Sand Corp.
34 Southern Silica, Inc.
35 Taylor Stone Co., Inc.

36 Waller Bros. Stone Co.
37 Waller Bros. Stone Co.
38 Waller Bros. Stone Co.
39 C M Mining, Inc.
40 Hard Rocks, Inc.

41 Kimble Limestone Co.
42 Pennsylvania Glass Sand Corp.
43 Alan Stone Co., Inc.

SHALE/CLAY □

Map
location
number

Name of operator

1	London Tiles, Inc.
2	Sandkuhl Tile Co.
4	Ferris Coal Co., Inc.
5	Summitville Tiles, Inc.
6	General Clay Products Corp.
7	Hydraulic Press Brick Co.
8	Galena Shale, Tile & Brick Co.
9	Claycraft Co.
10	Southwestern Portland Cement Co.
11	Bowerston Shale Co.
12	General Clay Products Corp.
13	Kishler Coal & Clay Co.
14	Kishler Coal & Clay Co.
15	Nutter Bros. Coal Co., Inc.
16	Nutter Bros. Coal Co., Inc.
17	Clark Clay Co.
18	General Clay Products Corp.
19	Holmes Limestone Co.
20	Paul Adams Coal Co.
21	Cedar Heights Clay Co.
22	Cedar Heights Clay Co.
23	Waterloo Coal Co., Inc.
24	American Olean Tile Co., Inc.
25	Belville Mining Co.
26	Brohard Mining & Development, Inc.
27	Brohard Mining & Development, Inc.
28	Brohard Mining & Development, Inc.
29	Chaney Mining Co.
30	Lone Star-Marquette
31	Bowerston Shale Co.
32	AFC Corp.
33	SME Bessemer Cement, Inc.
34	SME Bessemer Cement, Inc.
35	Thompson Bros. Mining Co.
36	Glen-Gery Corp.
37	General Clay Products Corp.
38	Bowerston Shale Co.
39	Columbia Portland Cement Corp.
40	Hammer Clay Co., Inc.
41	Towne Square Products
42	General Portland, Inc.
43	Dennis Clay Co.
44	Kishler Coal & Clay Co.
45	Kishler Coal & Clay Co.
46	Ludowici Celadon Co.
47	Nutter Bros. Coal Co., Inc.
48	Miller Bros. Clay Works, Inc.
49	Richland Brick Co.

50	C M Mining, Inc.
51	ENZ, Inc.
52	East Ohio Limestone Co.
53	Kohl Industries
54	SME Cement, Inc.

55	Romany Ceramics, Inc.
56	Belden Brick Co.
57	Belden Brick Co.
58	Belden Brick Co.
59	Belden Brick Co.
60	Belden Brick Co.
61	Eberhart Coal, Inc.
62	Fairfield Brick Co.
63	Kimble Limestone Co.
64	L & M Minerals, Inc.
65	L & M Minerals, Inc.
66	L & M Minerals, Inc.
67	Stone Creek Brick Co.
69	Sugarcreek Clay & Limestone Co.
70	Zoar Mining Co.
71	Zoar Mining Co.
72	Orrville Tile Co.
73	Claycraft Co.
74	Dennis Clay Co.
75	Dennis Clay Co.

GYPSUM ◆

Map
location
number

Name of operator

1	Celotex Corp.
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SALT ■ ■

Map
location
number

Name of operator

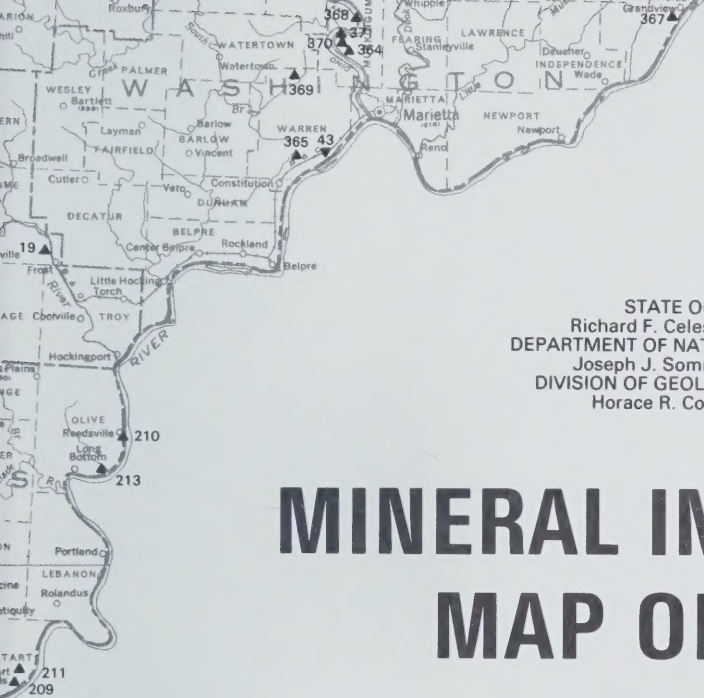
1	International Salt Co.
2	Morton Thiokol, Inc.
3	R. H. Penick Co.
4	Diamond Crystal Salt Co.
5	Morton Thiokol, Inc.

PEAT ◇

Map
location
number

Name of operator

1	Mohican Organic Products, Inc.
2	Sphagnum Moss Peat Farm
3	Weaver's Peat Co.
4	Lingvai Peat Co.
5	Kalo, Inc.



STATE OF OHIO
Richard F. Celeste, Governor
DEPARTMENT OF NATURAL RESOURCES
Joseph J. Sommer, Director
DIVISION OF GEOLOGICAL SURVEY
Horace R. Collins, Chief

MINERAL INDUSTRIES

MAP OF OHIO

1985

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COMPILED BY
SHERRY L. WEISGARBER
AND
CLARK L. SCHEERENS

This map is a revision of the 1977 publication *Mineral industries map of Ohio* and is intended for general reference. This edition is based on operators listed in the *1985 Report on Ohio mineral industries*. Assistance with locations was received from the Ohio Department of Natural Resources, Division of Reclamation.

CARTOGRAPHER: MICHAEL R. LESTER



MINERAL INDUSTRIES MAP OF OHIO

1985

STATE OF OHIO
Richard F. Celeste, Governor
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Joseph J. Sommer, Director
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CARTOGRAPHER: MICHAEL R. LESTER

- MINES AND QUARRIES**
- Coal, underground
 - Coal, strip
 - Gypsum
 - Limestone/dolomite
 - Peat
 - Salt, brine
 - Salt, rock
 - ▲ Sand and gravel
 - ▲ Sand and gravel dredging operation
 - ▲ Sandstone/conglomerate
 - Shale/clay

Locations are approximate. Numbers opposite symbols are map location numbers assigned to operators listed in the alphabetical directories of the Division of Geological Survey's *Report on Ohio mineral industries*. The operator of a mine or quarry may be determined from the directories by use of the map location commodity symbol, number, and county name. A list of operators by commodity and map-location number is also provided.

BASE MAP BY UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY

